

4.9 HYDROLOGY AND WATER QUALITY

This section describes the existing hydrological and water quality conditions within the proposed Special Use District B (SUD-B) Northeast Quadrant Specific Plan (proposed project or proposed plan) area, and analyzes the potential environmental effects to water quality, drainage, flooding, and groundwater that may occur. The primary sources of information used in this section consist of the following project-specific technical studies:

- *SUD-B Northeast Quadrant Specific Plan Master Drainage Study. Draft.* Prepared by Frayji Design Group, Inc. November 2016. (Appendix F to the EIR)
- *SUD-B Northeast Quadrant SB 610 Water Supply Assessment. Draft.* Prepared by Tully & Young. January 2017. (Appendix I to the EIR)

Supplementary information on water resources was obtained from the *City of Lincoln General Plan* and associated background reports (City of Lincoln 2008, Civil Engineering Solutions 2006), as well as public data, maps and reports from resources agencies including as the State Water Resources Control Board (SWRCB), the Central Valley Regional Water Quality Control Board (CVRWQCB), the California Department of Water Resources (DWR), and the Federal Emergency Management Agency (FEMA). These and other sources consulted are listed in Section 4.9.8, References.

Comments received in response to the Notice of Preparation (NOP, see Appendix A) included a comment from the Central Valley Flood Protection Board (CVFPB) asserting board jurisdiction, and a comment from Caltrans indicating a hydrologic and hydraulic analysis must show no increase in runoff to State Highway facilities. In addition, commenters are also concerned about impacts to wetland, wetland-dependent wildlife, and flooding issues. These comments are addressed in Section 4.9.4, Impacts Analysis.

4.9.1 Existing Conditions

The following section describes baseline physical environmental conditions related to hydrology and water quality. The study area for surface water resources consists of the watersheds associated with Markham Ravine and Auburn Ravine, including downstream surface waters. The study area for groundwater resources consists of the DWR-defined groundwater basin underlying the project area and the City of Lincoln.

4.9.1.1 Physiography and Climate

Elevations on the project site vary from a high of about 135 feet above mean sea level (amsl) near the project's eastern boundary to a low of approximately 105 feet amsl where Markham

Ravine crosses the project's western boundary (USGS 2016). This elevation difference translates to an average slope of less than 1% and appears flat or nearly flat to the naked eye.

The project area lies within the Mediterranean subtropical climate zone that is typical of Central California. Winters are typically cool and wet. Summers are typically hot and dry. Annual rainfall in the region averages 24 inches and occurs primarily during late fall and on into the spring (November through April) (EcoLogic Engineering, 1998 as cited in City of Lincoln 2008). The habitat types and land uses in the project area primarily consist of non-native annual grassland, with oak woodland and riparian features occupying a narrow corridor along Auburn Ravine, and riparian features along Markham Ravine. A combination of dry farming and flood-irrigation has occurred on the project area at various times in the past for the purpose of hay production.

4.9.1.2 Surface Water Resources

The following discussion addresses the watershed designations applicable to the project site; describes the associated creeks and downstream receiving waters; and summarizes the available data on surface water quality.

Watersheds and Watercourses

A watershed is an area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. The word watershed is sometimes used interchangeably with drainage basin or catchment, and can often be identified differently for the same site, depending on the scale of interest. Watersheds are usually bordered and separated from other watersheds by mountain ridges or other naturally elevated areas, but can sometimes contain administrative boundaries if defined within the context of a planning document.

Regionally, watersheds within the project area are identified based on the U.S. Geological Survey (USGS) Watershed Boundary Dataset (WBD) (USGS 2016). The WBD delineates watersheds according to hydrologic units (HUs), which are nested within one another according to the scale of interest. USGS identifies HUs by name and by hydrologic unit code (HUC), which gets longer as the watershed boundaries get more detailed. For example, at a statewide scale, HUs consist of large regions and sub-regions draining to a common outlet. At this scale, the project area is within the 20,124 square-mile "Lower Sacramento" basin (HUC 180201), which is geographically defined by all areas draining to the Sacramento River between Shasta Dam and the delta. At a regional scale, HUs consist of subbasins and watersheds; and at a local scale, watersheds are further divided into sub-watersheds. Table 4.9-1 lists the subbasin, watersheds and subwatersheds defined by the USGS WBD for the project area.

Table 4.9-1
Watersheds Intersected by the Proposed Project

Basin	Watershed (HUC10 Code / size)	Sub-watershed (HUC12 Code / size)	Project Area Within Watershed
Upper Coon- Upper Auburn, (434 mi ²)	Pleasant Grove Creek-Cross Canal (1802016103, 125 mi ²)	Markham Ravine (180201610301 / 21,298 acres)	Gill Property and Western parcel of the Peery Arrillaga Property (164 Acres)
	Auburn Ravine (1802016101, 64 mi ²)	Dutch Ravine-Auburn Ravine (180201610102 / 26,359 acres)	Eastern parcel of the Peery Arrillaga Property (34 Acres)

Source: USGS 2016.

Notes: HUC = hydrologic unit code; mi² = square miles

In managing water resources, the SWRCB classifies watersheds in a hierarchical system similar to the USGS Watershed Boundary Dataset, but with watershed names and boundaries that are designated by DWR. These geographic boundaries are likewise watershed based, but are typically referred to as hydrologic basins and are defined in the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (otherwise known as the Basin Plan) (Central Valley RWQCB 2016).¹ These generally constitute the geographic basis around which many surface water quality problems and goals/objectives are defined, and consist of surface water HUs, hydrologic areas (HAs), and hydrologic subareas (HSAs). The proposed project is in the “Valley-American” HU (HU Code 519.00), the Coon-American HA (HA Code 519.20), and Pleasant Grove HSA (HSA Code 519.22) (Central Valley RWQCB 2016):

The aforementioned basins and watersheds designated by the USGS WBD, and CVRWQCB are based on low-resolution topographical data and used for the purpose of regional planning. It should be noted that the proposed project’s Drainage Master Plan (Appendix F) relies on a site-specific delineation of over 20 drainage areas (or drainage “sheds”) to evaluate pre- and post-project peak flow rates and volumes (further described in Section 4.9.1.3). These are determined, based in part, on higher-resolution topographic data and knowledge of the engineered drainage networks and facilities present within the area (i.e., storm drains, culverts, swales, and adjacent planned development).

Surface Water Features

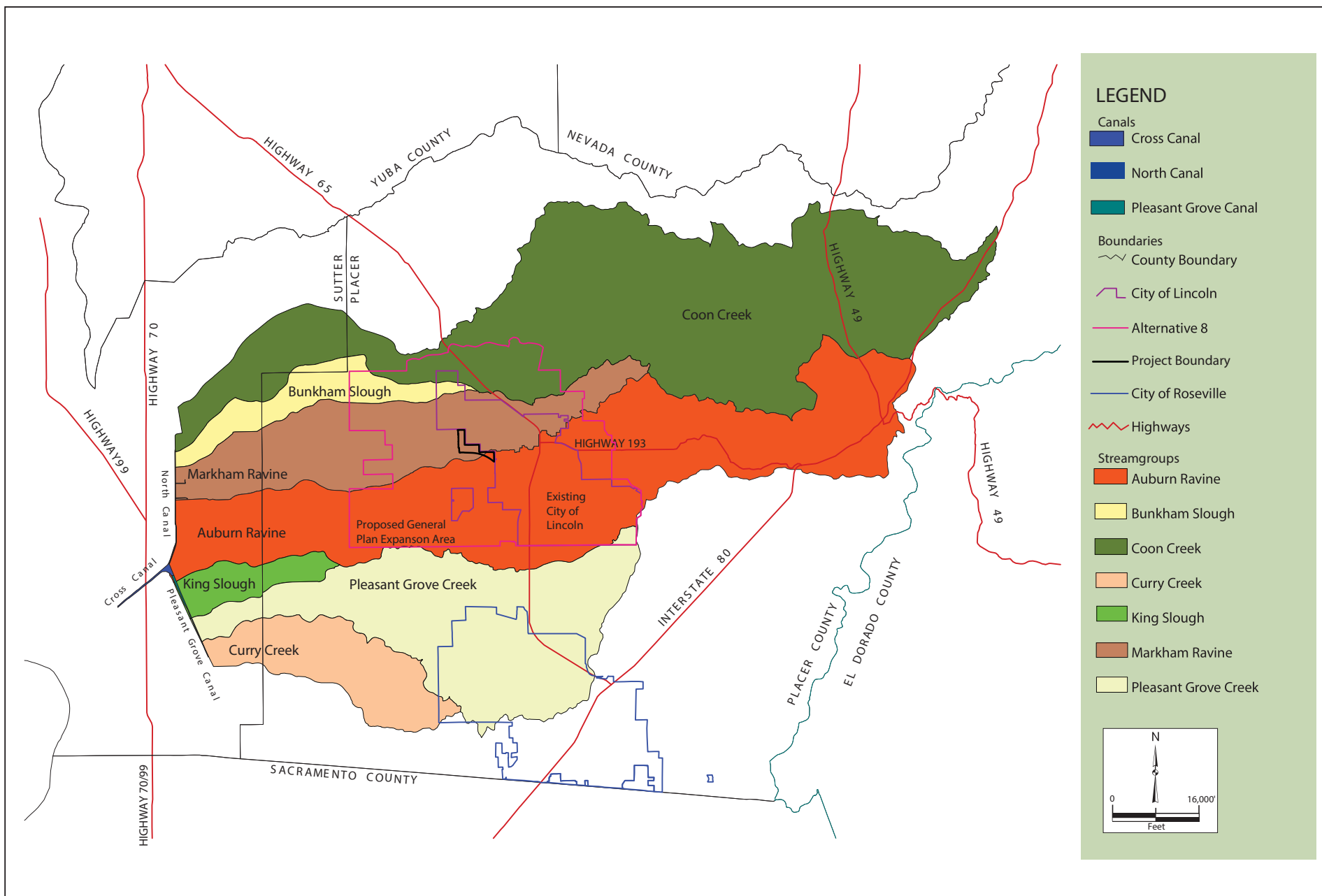
Streams in the project region include Auburn Ravine, Orchard Creek, Ingram Slough, Markham Ravine, and Pleasant Grove Creek, all of which originate east of Lincoln and flow westward. The project area is crossed by Auburn Ravine and Markham Ravine. Under existing conditions, stormwater that is not infiltrated into the soil moves as sheet flow towards Markham and Auburn

¹ The Basin Plan for each region serves as the regulatory reference for meeting both state and federal requirements for water quality control. It designates beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving those objectives.

Ravines, as well as to the west of the site. Runoff from the eastern parcel of the Peery-Arrillaga Property (approximately 34 acres) flows toward Auburn Ravine, and runoff from the Gill Property and the western parcel of the Peery-Arrillaga Property (approximately 164 acres) flows toward Markham Ravine (or to the west and eventually to Markham Ravine). Both Auburn and Markham Ravine watersheds are part of the larger Natomas Cross Canal watershed of northwestern Placer County and southeastern Sutter County, as shown in Figure 4.9-1. The Auburn and Markham Ravine watersheds drain westerly into the North Canal, to the Natomas Cross Canal, and then to the Sacramento River.

Markham Ravine bisects the northern portion of the project site, while a small portion of Auburn Ravine traverses the southeastern portion of the project site. Oak woodland and riparian habitat are present near the ravines. Markham and Auburn Ravines are further described below:

- **Auburn Ravine:** Auburn Ravine, a perennial stream, crosses the southeastern end of the project and then under State Route 65 (SR-65). Auburn Ravine within project area flows year-round due to supplemental waters added by Nevada Irrigation District (NID), which are delivered to downstream agricultural users. Adjacent to Auburn Ravine is a basin that was previously used as storage for irrigation waters for use on site and empties into Auburn Ravine through an existing 12-inch drainage pipe. The 12-inch drainage pipe was placed by Caltrans when the SR-65 bypass was constructed to drain the storage pond and it has a one-way flapper valve on the downstream side to prevent high flows from backing up into the basin.
- **Markham Ravine:** Markham Ravine, an intermittent stream, crosses under Nicolaus Road, through the northern portion of the project and then west under Nelson Lane. A portion of the existing drainage flows west from the project area and crosses under Nelson Lane through culvert crossings, through several poorly defined channels to meet at SR-65 approximately half a mile west of the project area. The proposed project would use the existing culverts in Nelson to maintain flows for existing vegetation with larger flows diverted directly to Markham Ravine via a proposed storm drain along Nelson Lane. SR-65 travels along the southern boundary of the project site, a part of the southern commercial and residential parcels flows into existing and proposed pipes crossing into the Caltrans Right-of-Way, then along the existing drainage ditch west that runs parallel to SR-65 and into Markham Ravine.



SOURCE: City of Lincoln (2008)

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City of Lincoln SUD-B Project DEIR

FIGURE 4.9-1
Regional Watersheds

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All streams in the City are small, have well-defined channels, and historically had only seasonal flows prior to the development of mining canals and other structures used to convey water for agricultural production and hydropower generation (Civil Engineering Solutions 2006). Typically, stream flows are lowest during the late summer months. The project area accepts only a small amount of off-site flow from the existing subdivision to the west and north of the proposed residential sites. The proposed Lewis home residential site north and west of the project also flows north into Markham Ravine and through the north side of the project area.

Surface Water Quality

Several water bodies downstream of the project site—namely the Natomas Cross Canal and the Sacramento River—are designated as “impaired” under Section 303(d) of the federal Clean Water Act (CWA) (Table 4.9-2, CWA Section 303(d) Listings for Project Receiving Waters). Being impaired (also known as “water quality-limited”) means that a water body is “not reasonably expected to attain or maintain water quality standards” without additional regulation. The law requires that the U.S. Environmental Protection Agency (EPA) develop total maximum daily loads (TMDLs) for each impaired water body in the nation (described further below in Section 4.9.2). The TMDLs specify the maximum amount of a pollutant a water body can receive and still meet water quality standards. A TMDL may also include a plan for bringing an impaired water body back within standards. The most recently approved Section 303(d) List of Water Quality Limited Segments lists a mercury impairment for the Natomas Cross Canal and a number of impairments for the Sacramento River. None of the water bodies listed as impaired under CWA Section 303(d) occur within the project site, and the TMDLs that has been developed for downstream waters (i.e., mercury and diazanon) address pollutants that would not be generated by the proposed project.

In more general terms however, surface water quality is influenced by a variety of factors including the physical and chemical characteristics of the watershed, hydrologic and climatic factors, and the quality of inputs of waters and wastes that discharge to the surface water. During fall low-flow conditions to Auburn Ravine and other streams in the Planning Area, water quality conditions of high importance to aquatic organisms include water temperature, dissolved oxygen, and turbidity. Water quality conditions of concern for human activities (e.g., recreational water-contact activities, etc.) or other beneficial uses (e.g., water supply, etc.) are levels of drinking water pollutants, toxic constituents, pathogenic organisms, odors, and nuisance algae forming conditions.

Overall, the quality of water in local streams is generally good. Previous studies have confirmed that the temperature and dissolved oxygen support a cold-water fishery in Auburn Ravine (City of Lincoln 2008). However, dissolved oxygen values demonstrated a decline along the lower reaches of Auburn Ravine below the developed portions of the City. Additionally, turbidity and coliform bacteria factors increased as water flowed through urban areas. These changes may

likely reflect the influences of urban runoff, agricultural activities, septic tanks, and other factors (City of Lincoln 2008). Hydromodification² impacts of urban development can include excessive velocity (and associated turbidity) in storm runoff, scouring of stream banks, and/or mobilization of non-point source pollutants associated with development (e.g., trash, grease/oils, exterior washing/cleaning products, fertilizers/pesticides, pet waste, etc.). These water quality issues are an ongoing concern and cumulative result of watershed urbanization.

Table 4.9-2
CWA Section 303(d) Listings for Project Receiving Waters

Water Body	Pollutants	TMDL Status	Potential Sources
Natomas Cross Canal	Mercury	Requires TMDL / 2021	Unknown
Sacramento River (Knights Landing to the Delta)	Chlordane	Requires TMDL / 2021	Unknown
	DDT	Requires TMDL / 2021	Unknown
	Diazanone	Approved / 2003	Unknown
	Dieldrin	Requires TMDL / 2022	Unknown
	Mercury	Requires TMDL / 2012	Abandoned Mines
	Unknown Toxicity	Requires TMDL / 2019	Unknown

Sources: SWRCB 2016.

4.9.1.3 Peak Flows and Flood Hazards

Regulatory Flood Zones

Floodplains are illustrated on flood insurance rate maps (FIRMs) produced by FEMA, which show areas of potential flooding and water depths. The floodplain is most often referred to as the area that is inundated by a 100-year flood event. A 100-year flood event has a 1% chance of being equaled or exceeded in any given year. An area within a designated 100-year floodplain may have substantially less protection and be susceptible to flooding on a regular basis; therefore, the 100-year flood is the national minimum standard to which communities regulate their floodplains through the National Flood Insurance Program (NFIP). The only areas in the project site with a 100-year floodplain designated by FEMA are Markham and Auburn Ravines, which are mapped as Zone A. Zone A designation means that Markham and Auburn Ravine creek corridors are subject to inundation by the 1 percent annual chance flood event (i.e., 100-year flood), but that FEMA has not yet incorporated detailed hydraulic analysis necessary to determine precise base flood elevations, cross sections, or flood depths. Such flood zones have typically been mapped from low-resolution topographic data, and shows implausible overlap of the inundation extents with and areas of higher elevation and steep terrain.

² Hydromodification is defined as changes in channel form associated with alterations in flow and sediment due to past or proposed future land-use alteration that affect watershed processes.

However, the preliminary Flood Insurance Study (FIS) for the project area is presently being updated to include new elevations for "Pleasant Grove Creek and its Tributaries in Placer County" project (Appendix F). The update includes amendments to the hydrology and hydraulic models for Auburn Ravine, which provides new/updated base flood elevations for the project area along Auburn Ravine. Although these have not yet been incorporated into FEMA's effective FIRMs to date, the update is expected to occur in the near future. The Master Drainage Study for the proposed project incorporates the updated information and modeling in its depiction of FEMA flood zones and its evaluation and design of proposed drainage features (i.e., pipes, swales, detention basins and outfalls). The 100-year flood zones that cross the project site are depicted in Figure 4.9-2.

Flooding History

Approximately 30 square miles of area are tributary to Auburn Ravine east of the City Limits, with an estimated peak 100-year flowrate of 14,500 cubic feet per second. The City has recorded several flooding events in the recent past involving structures along the Auburn Ravine corridor and its tributaries in the City of Lincoln (City of Lincoln 2008). In 1986, 1995 and 1997, the Auburn Ravine bridge structures at SR-65, and SR-193 were overtopped. The existing bridge at the Joiner Parkway crossing of Auburn Ravine did not flood in these events and would not be expected to flood in an event less than the 500-year. Downstream of the City of Lincoln, Flooding was also noted at the Moore Road and Nelson Lane crossings. Several smaller private crossings overtop frequently (City of Lincoln 2008). The New Year's Eve storm event of 2005/2006 did not result in overtopping of any of the main bridge structures along the ravine (SR-193, SR-65 and Joiner Parkway). However, the Moore Road and Nelson Lane crossings of Auburn Ravine were reported as overtopped. The storm was estimated to be a 10-year event for Auburn Ravine and a lesser event in the tributaries (City of Lincoln 2008).

Flooding within Markham Ravine is known to occur mostly in the rural areas of the City, where culvert and bridge crossings do not provide adequate capacity (City of Lincoln 2008). West of SR-65, flooding has occurred at the low areas of Nicolaus Road (not at the bridge location). At Nelson Lane, flooding is expected annually (City of Lincoln 2008). The SR-65 Bridge is expected to overtop in storm events greater than the 10-year, and the Union Pacific Railroad Bridge is only expected to be overtopped in a 50-year or greater event. Other private crossings of the Ravine are expected to overtop annually.

Observations of past flood events therefore, appear to indicate that Nelson Lane which forms the western boundary of the proposed project is subject to periodic flooding during intense storm events.

Hydrologic Modeling

The proposed project's Master Drainage Study, included as Appendix F, used industry-standard hydrologic analysis software (HEC-1³) and prior watershed modeling for adjacent projects (i.e., the Lincoln Hills, Lincoln crossing, Twelve Bridges, Village 1, and Nelson Lane Roadway Improvements and Bridge Replacement Project) to develop a comprehensive hydrologic model for Auburn Ravine and Markham Ravine (Kinematic Wave), in accordance with the Placer County Flood Control and Water conservation District "Stormwater Management Manual (SWMM). Two separate models were developed to characterize runoff into Auburn Ravine and Markham Ravine respectively, for storms of various recurrence intervals (2-year, 10-year, 100-year, 200-year, and 500-year).

A summary of model inputs and variables is provided below and described in more detail in Appendix F:

- **Drainage Basin Delineation:** Sub-watersheds are used to characterize the flow network, land cover, rainfall, and lag time, so that peak flows can be accurately modeled. The portion of the project site (and upstream areas draining into the site) within the Markham Ravine watershed was divided into 17 sub-watersheds, and the portion of the project site (and upstream areas draining into the site) within the Auburn Ravine watershed was divided into 7 sub-watersheds. These sub-watersheds were delineated based on terrain data and in consideration of modifications from existing roadways, agricultural and public use operations.
- **Rainfall Depth and Distribution:** The watershed models used for the proposed project include more than 1 square mile of area, and therefore, the effects of spatial distribution of a storm may have an impact on the computed peak flow rates. "Storm centering" uses those spatial distributions to calculate their impact on peak flow rates. Per SWMM, a tool called "PDP2" was used to compute precipitation values across varies storm directions/distributions, and the highest value in the range was used in the model.
- **Curve Number:** The curve number is a coefficient that reduces the total precipitation to runoff potential, considering factors such as evaporation, absorption, transpiration, and surface storage (the higher the curve number value, the higher the runoff potential). Curve numbers are determined based on a combination of soil type and vegetation cover, and are typically area-weighted within each sub-watershed to determine a single weighted curve number (or infiltration) value.

³ HEC-1 is a hydrologic model produced by the Hydrologic Engineering Center of the U.S. Army Corps of Engineers that is designed to describe the physical properties of river basins, the meteorology that occurs on them, and the resulting runoff and streamflow that are produced.

- Lag Time/Flow Routing:** These parameters are important in characterizing how and when peak flow rates within each sub-watershed contribute and combine into downstream drainages. Calculations of sub-watershed characteristics such as flow length, average slope, and Manning's n value (a measure of channel roughness) are used to incorporate lag time into the HEC-1 software.

The peak flow rates to Markham Ravine and Auburn Ravine under existing conditions are shown in Table 4.9-3. Existing 10- and 100-year flow within the portion of Auburn Ravine that crosses the project area is 5,907 and 12,102 cubic feet per second (cfs), respectively (Appendix F). Existing 10- and 100-year flow to the portion of Markham Ravine that crosses the project area is 1,169 and 2,777 cubic feet per second (cfs), respectively (Appendix F)

Table 4.9-3
Pre-Project Peak Flow Rates for Markham and Auburn Ravine

Node	Description	2-year (cfs)	10-year (cfs)	100-year (cfs)
<i>Markham Ravine</i>				
MA2B2A	Areas East of SUD-B NEQ	15	35	68
MA2B2	Areas East of SUD-B NEQ	160	325	586
MA2B3	Areas East of SUD-B NEQ	162	327	590
MA2B2C	Combine	272	687	1261
COMB	Combine	396	968	1778
NICHOL	Nicholas Road	395	963	1761
MA2C5	Markham Ravine	397	967	1766
MA2C1	Open Space	1	3	8
MA2C2	Open Space	1	3	6
YCMA2N	Combine	398	970	1774
MA2C6	Open Space	399	974	1779
NELSON	Nelson Lane	399	969	1772
MA2C12	South of SR 65	8	37	88
MA2C9X	North of SR 65	1	2	4
MA2CMB	Combine	9	39	93
MA2C8X	North of SR 65	1	4	10
MA2C10	State Route 65	4	19	44
MA2CMC	Combine	13	57	135
MA2C9	Agricultural	4	16	38
MA2C8	Agricultural	14	28	67
MA2C7	Open Space	2	8	20
YCMA2S	Combine	423	1036	1896
MARR09	Route Flow to Dowd Road	376	836	1453

Table 4.9-3
Pre-Project Peak Flow Rates for Markham and Auburn Ravine

Node	Description	2-year (cfs)	10-year (cfs)	100-year (cfs)
MA2C14	Shed West of SUD-B NEQ	106	436	944
MA2CC	Combine	478	1169	2116
MARR11	Route to Pleasant Grove Road	472	1147	2071
<i>Auburn Ravine</i>				
A10A10	South of Orchard Parcel	6	13	26
10A10C	Combine	2264	5943	10007
A10A11	South of Orchard Parcel	18	39	79
A10A50	Residential North of Orchard	12	29	57
A10A52	Orchard, Open Space and Residential	33	79	155
A10A51	Agricultural	8	21	43
A10A5N	Open Space	9	24	49
COMBP	Combine	41	102	203
A10A53	Agricultural and SR 65	55	132	252
A10A54	Agricultural south of SR 65	61	147	284
10A12C	Combine	2267	5952	10031
10A11R	Route to near SR 65 Crossing	2206	5904	9965
A10A13	State Route 65	10	21	41
A10A14	West Areas of Three D Project	16	34	69
10A14C	Combine	2208	5907	9970

Source: Appendix F, Table II.F.1A1.

Other Flood Hazards

Due to the location of the project site (i.e., not near a coast, adjacent to a large body of water, in hilly terrain, or downstream of a major reservoir), it is not subject to other types of flooding including tsunami, seiche, mudflow, or inundation from dam or levee failure.

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4.9.1.4 Groundwater Resources

The proposed project is located within the North American River Groundwater Sub-Basin (Sub-Basin) underlying western Placer County. DWR designates groundwater basins for the purpose of monitoring and sustainably managing groundwater resources; the Sub-Basin is designated as Basin Number 5-21.64 and is a part of the larger Sacramento Valley Groundwater Basin (DWR 2006). The basin has a surface area of 548 square miles and is bounded by the Bear River to the north, the Feather River to the west, the American River to the south, and the sierra foothills to the east (DWR 2006). The upper unconfined aquifer system consists of the Riverbank (formerly known as Victor) and Turlock Lake/Laguna (formerly known as Fair Oaks-Laguna) formations; the lower semi-confined aquifer system consists primarily of the Mehrten formation. These two systems constitute the major water producing aquifers in the region. They are composed of sand, silt, and clay, inter-bedded with coarse-grained stream channel deposits that store water. The information below is derived from the Western Placer County Groundwater Management Plan and recent groundwater monitoring data (MWH 2007, DWR 2017a).

The City primarily uses treated surface water delivered by PCWA, and relies on groundwater for emergency outages and as a backup water supply source during daily and peak demand periods. The City also provides recycled water from its wastewater treatment recycling facility (WWTRF) for nearby agricultural uses, and is working on expanding the use of recycled water to include non-potable commercial, industrial, and public landscaping needs. Based on a network groundwater wells for which DWR collects depth to water data, the depth to water in Fall 2016 in the vicinity of the project site ranges between 50 and 70 feet below the ground surface. Regionally, the groundwater gradient is to the southwest, but locally may be more to the south or southeast, based on recent groundwater level trends (DWR 2017a).

Recharge to the Sub-basin system occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly along the Feather, Bear, American, and Sacramento River channels. Additional recharge occurs along the eastern boundary of the Sub-Basin within western Placer County at the transition point from the consolidated rocks of the Sierra Nevada to the alluvial deposited basin sediments (where the semi-confined Mehrten formation is exposed at the ground surface). This typically occurs through fractured granitic and metavolcanic rock that makes up the Sierra Nevada foothills. Other sources of recharge within the area include deep percolation associated with applied irrigation water and precipitation, as well as from smaller streams that bi-sect the region (i.e., Auburn Ravine and Coon Creek) (MWH 2007).

The groundwater quality in the upper aquifer system is regarded as superior to that of the lower aquifer system. The upper aquifer is preferred over the lower aquifer principally because the lower aquifer system (specifically the pre-Mehrten formation) contains higher concentrations of iron and manganese, and in some cases arsenic. Water from the upper aquifer generally does not

require treatment (other than disinfection). The lower aquifer system also has higher concentrations of total dissolved solids (TDS, a measure of salinity) than the upper aquifer, although it typically meets standards as a potable water supply. In general, at depths of approximately 1,200 feet or greater (actual depth varies throughout the basin), the TDS concentration can exceed 2,000 milligrams per liter (mg/L). At such concentrations, the groundwater is considered non-potable without treatment (MWH 2007).

4.9.2 Relevant Plans, Policies, and Ordinances

The regulatory framework related to hydrology and water quality is extensive because it addresses issues related to the environment (i.e., maintaining high quality waters for water-dependent species and activities), public health (e.g., ensuring adequate drinking water quality), and public safety (e.g., avoiding flood damage). Impacts pertaining to the provision of potable and non-potable water supplies, including applicable regulations, are addressed in Section 4.17, Utilities and Service Systems.

4.9.2.1 Federal

Clean Water Act

The Clean Water Act (CWA), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality (33 U.S.C. 1251 et seq.). The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” The CWA establishes basic guidelines for regulating discharges of both point and non-point sources⁴ of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA. Relevant sections of the act are as follows:

- **Sections 303 and 304** provide for water quality standards, criteria, and guidelines. Under Section 303(d) of the CWA, the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. California is required to establish total maximum daily loads (TMDLs) for each pollutant/stressor. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. Once a water body is placed on the CWA Section 303(d) List of Water Quality Limited Segments, it remains on the list until a TMDL is adopted and the water quality standards are attained, or there is sufficient data to demonstrate that existing conditions warrant delisting from the Section 303(d) list. The water quality impairments relevant to the Project are shown in Table 4.9-2, and the basin

⁴ Point source discharges are those emanating from a pipe or discrete location/process, such as an industrial process or wastewater discharge. Non-point source pollutants are those that originate from numerous diffuse sources and land uses, and which can accumulate in stormwater runoff or in groundwater.

planning process that establishes beneficial uses and associated water quality objectives are further described in Section 4.9.2.2.

- **Section 401 (Water Quality Certification)** requires an applicant for any federal permit that proposes an activity which may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the CWA. This process is known as the Water Quality Certification process. For projects in the City of Lincoln and Placer County, the Central Valley RWQCB issues CWA Section 401 permits. The proposed project would require a Section 401 water quality certification which would also be required in conjunction with the CWA Section 404 permit.
- **Section 402 (National Pollutant Discharge Elimination System)** establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the SWRCB and the nine RWQCBs, who have several programs that implement individual and general permits related to construction activities, stormwater runoff quality, and various kinds of non-stormwater discharges. These general permits are further described in Section 4.9.2.2.
- **Section 404 (Discharge of Dredged or Fill Material into Waters of the United States)** establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is jointly administered by the USACE and the EPA. EIR Section 4.4, Biological Resources, indicates waters of the United States will be impacted by the proposed development, including vernal pools, seasonal wetlands, an irrigation pond, and various swales, drainages, and ditches. Therefore, the proposed project would require a CWA Section 404, discussed in greater detail in Section 4.4.

Numerous agencies have responsibilities for administration and enforcement of the CWA. At the federal level this includes the EPA, the U.S. Army Corps of Engineers, the Bureau of Reclamation, and the major federal land management agencies such as the U.S. Forest Service and the Bureau of Land Management. At the state level, with the exception of tribal lands, the California EPA and its sub-agencies, including the State Water Resources Control Board (SWRCB), have been delegated primary responsibility for administering and enforcing the CWA in California. At the local level, the Central Valley Regional Water Quality Control Board (CVRWQCB) and Placer County and the City of Lincoln (as operators of a municipal storm drain system) have both implementation and enforcement responsibilities under the CWA.

Federal Antidegradation Policy

The federal antidegradation policy (40 CFR §131.12) of the federal CWA is designed to protect water quality and water resources. The policy requires states to develop statewide antidegradation policies and identify methods for implementing them. State antidegradation

policies and implementation measures much include the following provisions: (1) existing instream uses and the water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected. State permitting actions must be consistent with the federal Antidegradation Policy.

National Flood Insurance Act

The National Flood Insurance Act of 1968 Act established the National Flood Insurance Program (NFIP) to provide flood insurance within communities that would adopt floodplain management programs to mitigate future flood losses. The Act also required the identification of all floodplain areas within the United States and the establishment of flood-risk zones within those areas. The Federal Emergency Management Agency (FEMA) is the primary agency responsible for administering programs and coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing Flood Insurance Rate Maps (FIRMs) that delineate the areas of known special flood hazards and their risk applicable to the community. FEMA FIRMs are used as part of state and community floodplain management regulations, as well as for insurers to calculate flood insurance premiums. They are also used for emergency management, land use and water resources planning, and by federal agencies. It is the responsibility of state and local agencies to implement regulations, ordinances, and policies in compliance with FEMA requirements to adequately address floodplain management issues and attempt to prevent loss of life and property, health and safety hazards, and other adverse effects due to flooding.

The National Flood Insurance Reform Act of 1994 resulted in major changes to the NFIP. The Act provides tools to make NFIP more effective in achieving its goals of reducing the risk of flood damage to properties and reducing federal expenditures for uninsured properties damaged by flood. The Act requires mitigation insurance and establishes a grant program for state and community flood mitigation planning projects.

4.9.2.2 State

The following state regulations pertaining to hydrology and water quality would apply to the proposed project.

Porter-Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (codified in the California Water Code, Section 13000 et seq.) is the primary water quality control law for California. Whereas the CWA applies to all waters of the United States, the Porter–Cologne Act applies to waters of the state⁵, which includes isolated wetlands and groundwater in addition to federal waters. The Porter-Cologne Act grants the SWRCB and the nine RWQCBs power to protect water quality and is the primary vehicle for implementation of California’s responsibilities under the federal CWA. The Porter-Cologne Act also grants the SWRCB and the nine RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges of waste to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum products.

The act requires a “Report of Waste Discharge” for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. California Water Code Section 13260 subdivision (a) requires that any person discharging waste or proposing to discharge waste, other than to a community sewer system, that could affect the quality of the waters of the state, shall file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States), an NPDES permit is required, which is issued under both state and federal law; for other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the state (such as groundwater and isolated wetlands), Waste Discharge Requirements (WDRs) are required and are issued exclusively under state law. WDRs typically require many of the same best management practices and pollution control technologies as required by NPDES-derived permits.

California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California, was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Antidegradation Policy, the California Anti-Degradation Policy applies to all waters of the state, not just surface waters. The policy requires that, with limited exceptions, whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality must be maintained and discharges to that water body must not unreasonably affect any present or anticipated beneficial use of the water resource.

⁵ “Waters of the state” are defined in the Porter–Cologne Act as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code, Section 13050(e)).

Water Quality Control Plan for the Sacramento and San Joaquin River Basins

The California legislature has assigned the primary responsibility to administer and enforce statutes for the protection and enhancement of water quality, including the Porter–Cologne Act and portions of the CWA, to the SWRCB and its nine RWQCBs. The Central Valley RWQCB implements the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (California Water Code Sections 13240–13247). The Porter–Cologne Act also provides the RWQCBs with authority to include within their basin plan water discharge prohibitions applicable to particular conditions, areas, or types of waste. The Basin Plan is continually being updated to include amendments related to implementation of TMDLs, revisions of programs and policies within the Central Valley RWQCB region, and changes to beneficial use designations and associated water quality objectives. The Basin Plan is the guiding document that establishes water quality standards for the region.

The Basin Plan for each region provides quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies and groundwater basins within the Sacramento and San Joaquin River Basin. Specific criteria are provided for the larger, designated water bodies within the region, as well as general criteria or guidelines for ocean waters, bays and estuaries, inland surface waters, and ground waters. In general, the narrative criteria require that degradation of water quality does not occur due to increases in pollutant loads that will adversely impact the designated beneficial uses of a water body. The beneficial uses that have the potential to be affected by the proposed project are defined for the Sacramento River from the Colusa Basin Drain to the I-Street Bridge in Sacramento. The beneficial uses applicable to the river include (1) municipal and domestic supply (MUN), (2) agricultural irrigation (AGR), (3) water contact and non-water contact recreation (REC-1 and REC-2), (4) warm and cold freshwater habitat (WARM and COLD), (5) fish migration and spawning (MIGR and SPWN), (6) wildlife habitat (WILD), and (7) navigation (NAV). Because Auburn and Markham Ravines discharge into the Cross Canal, which then discharges into the Sacramento River, these beneficial uses and associated water quality objectives also apply to those waters. The Basin Plan lists also groundwater quality objectives for bacteria, chemical constituents, pesticides, radioactivity, salinity, tastes and odors, and toxicity.

General NPDES Permits and WDRs

To enable efficient permitting under both the CWA and the Porter–Cologne Act, the SWRCB and the RWQCBs run permit programs that group similar types of activities that have similar threats to water quality. These “general permit” programs include the Phase II Small Municipal

Separate Storm Sewer System (MS4)⁶ Permit, the construction general permit, and other general permits for low-threat discharges. The Construction Stormwater Program and the Small MS4 Permit are administered by the SWRCB, while other general WDRs are administered by the CVRWQCB. Point source discharges or other activities that threaten water quality that are not covered under a general permit must seek individual NPDES permits and/or WDRs, depending on the type, location and destination of the discharge. For these types of discharges, the initial step in the process is to submit a “Report of Waste Discharge” to the CVRWQCB, who then determines the appropriate permitting pathway.

Table 4.9-4, State and Regional Water Quality-Related Permits and Approvals, lists the water-quality-related permits that would apply to certain actions conducted under the project, each of which is further described below.

Table 4.9-4
State and Regional Water Quality-Related Permits and Approvals

Program/Activity	Order Number/ NPDES Number	Permit Name	Affected Area
Construction stormwater program	2009-0009-DWQ/ CAS000002, as amended	NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	Statewide
Phase II Small Municipal Separate Storm Sewer System (MS4) Program	SWRCB Water Quality Order 2013-0001-DWQ/ CAS000004, as amended	Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Small MS4 Permit)	All Regulated Small MS4 systems.
Temporary/Low Volume Dewatering	Central Valley RWQCB Order No. R5-2013-0074/ CAG995001	Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality	Central Valley.

Notes: NPDES = National Pollutant Discharge Elimination System; MS4 = municipal separate storm sewer system; WDR = Waste Discharge Requirement

Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended). For stormwater discharges associated with construction activity in the State of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) to avoid and minimize water quality impacts attributable to such activities. The Construction General Permit applies to all projects in which construction activity disturbs 1 acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and

⁶ A small MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that serve populations of fewer than 100,000 persons.

implementation of a stormwater pollution prevention plan (SWPPP), which would include and specify water quality BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB.

To receive coverage under the Construction General Permit, the project applicant must submit a Notice of Intent and permit registration documents to the SWRCB. Permit registration documents include completing a construction site risk assessment to determine appropriate coverage level; detailed site maps showing disturbance area, drainage area, and BMP types/locations; the SWPPP; and where applicable, post-construction water balance calculations and active treatment systems design documentation.

Phase II Small Municipal Separate Storm Sewer System (MS4) Permit (SWRCB Order No. 2013-0001-DWQ, as amended). The SWRCB has designated the City of Lincoln as a Traditional Small MS4. For stormwater discharges from small MS4s, the SWRCB has adopted Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Small MS4 Permit) (Water Quality Order 2013-0001-DWQ). MS4 permits were issued in two phases. Under Phase I, which started in 1990, the RWQCBs adopted NPDES stormwater permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities. As part of Phase II, the SWRCB adopted a general permit for the discharge of stormwater from small MS4s (Water Quality Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities serving less than 100,000 people. SWRCB updated and revised the Small MS4 Permit under Water Quality Order 2013-0001-DWQ on February 5, 2013, which became effective on July 1, 2013 for a 5-year permit term.

The Small MS4 Permit consists of several program elements: Program Management, Public Involvement/Participation, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Pollution Prevention/Good Housekeeping for Permittee Operations, Post Construction Storm Water Management for New Development and Re-development, Water Quality Monitoring Requirements, Program Effectiveness Assessment, and Annual Reporting. Besides requiring implementation of construction site BMPs and performance criteria and design guidelines for development within the small MS4s service area, the Small MS4 Permit also requires operators to map their outfalls, properly maintain the storm drain system, educate the public on pollution prevention, and monitor and report on the quality of MS4 discharges to receiving waters, so that the effectiveness of the program can be evaluated. Collectively, the program elements are designed to ensure discharges from the storm drain system do not contain pollutant loads at levels that violate water quality standards and basin plan objectives and policies (such as a TMDL for a CWA

Section 303(d) impaired water body). Implementation of the program elements are the responsibility of the small MS4 operator, which is usually either a city, county, community services district, or special district.

Of particular relevance to the proposed project is that the Small MS4 Permit requires regulated projects⁷ to implement post-construction measures in the form of site design, source control, stormwater treatment measures, and baseline hydromodification management measures to reduce the discharge of pollutants in storm water to the Maximum Extent Practicable (MEP).⁸ These include:

- **Source Control Measures:** Source control measures seek to avoid introduction of water quality pollution/degradation altogether. Source control strategies include strategies such as covering refuse/trash areas, properly managing outdoor storage of equipment/materials, minimizing use of pesticides and fertilizers in landscaping, using sumps or special area drains to send non-stormwater discharges to the sewer, ensuring regular grounds maintenance, etc.
- **Site Design Measures:** Site design measures require early assessment and evaluation of how site conditions, such as soils, vegetation, and flow paths, will influence the placement of buildings and paved surfaces. The evaluation is used to meet the goals of capturing and treating runoff and maximizing opportunities to mimic natural hydrology. Options for site design measures include preserving trees, buffering natural water features, disconnecting impervious surfaces, and using green roofs or porous pavement.
- **Treatment Control Measures:** Treatment control measures retain, treat and/or infiltrate the site runoff produced under normal circumstances, controlling both the quality and quantity of stormwater released to the stormwater conveyance system and natural receiving waters. In most situations, this means implementing structural BMPs (e.g., infiltration, bioretention, and/or rainfall harvest and re-use) to address the volume and rate of runoff produced by 85th percentile storm⁹ (i.e., design capture volume). The Small MS4 Permit requires regulated projects to prioritize stormwater capture (e.g., infiltration and/or harvest and re-use) unless site conditions (e.g., low-permeability soils) make it infeasible

⁷ Regulated Projects are defined in Section E.12.c of Water Quality Order 2013-0001-DWQ, and include all projects that create and/or replace 5,000 square feet or more of impervious surface, not including: detached single-family home projects that are not part of a larger plan of development; interior remodels; routine maintenance or repair within the existing footprint; or linear underground/overhead projects.

⁸ The Maximum Extent Practical standard involves applying BMPs that are effective in reducing the discharge of pollutants in stormwater runoff. The Maximum Extent Practical requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive.

⁹ The 85th percentile storm represents a value of rainfall, in inches, such that 85% of the observed 24-hour rainfall totals within the historical record will be less than that value.

- **Hydromodification Measures:** Hydromodification measures are required for projects that create or replace one or more acres of impervious surfacing, so that post-project runoff shall not exceed the estimated pre-project flow rate for the 2-year, 24-hour storm. If the project creates or replaces less than 1 acre of impervious surfaces and demonstrates that post-project flows from the site are less than pre-project flows, then no hydromodification measures from Section E.12.e.(ii)(f) from the Phase II Small MS4 General Permit are required.
- **Operation and Maintenance Requirements:** The Small MS4 Permit requires that maintenance agreements stay in place with each property (executed and then recorded with the City or County Clerk) to ensure permanent treatment control measures developed on site are properly maintained and/or repaired in accordance with the stormwater quality control plan.

The aforementioned site design, treatment control, and hydromodification measures are often collectively referred to as “Low Impact Development” standards (or LID design). Details about the Small MS4 Permit are further described in the Project’s Post Construction Storm Water Quality Plan (Appendix A of EIR Appendix F).

General Order for Dewatering and Other Low-Threat Discharges to Surface Waters (CVRWQCB Order R5-2013-0074, as amended). The CVRWQCB has adopted a General Order for short-term discharges of small volumes of wastewater from certain construction-related activities. Discharges may be covered provided they are either (1) 4 months or less in duration or (2) the average dry weather discharge does not exceed 0.25 mgd. Construction dewatering and miscellaneous dewatering/low-threat discharges are among the types of discharges that may be covered by the order. To receive coverage, the discharger must submit a Notice of Intent to the RWQCB and describe the activity with sufficient detail to demonstrate that discharge would comply with the discharge prohibitions, effluent limitations, and receiving water limitations outlined in the order. In no case shall the discharge impair beneficial uses or violate water quality standards or cause a possible nuisance condition.

The project site could have shallow/perched groundwater. Therefore, securing coverage under this order could be required in the event dewatering discharges would be necessary during foundation excavations, utility trenching, or other site construction activities, and if such discharged could reach a nearby creek or drainage. As part of obtaining the Notice of Intent, dischargers must sample and analyze the discharge for specific priority pollutants, and dewatering discharge concentrations must meet the Screening Levels in the General Order for the discharge to be covered under the order. If the discharge is made to land (e.g., to a temporary infiltration/percolation basin on-site), the applicant would need to apply for coverage under the Statewide General Waste Discharge Requirements for Discharges to Land

with a Low Threat to Water Quality (SWRCB Order No. 2003-0003-DWQ) or equivalent. The intent and procedures for coverage under this permit is similar as described above.

California Department of Transportation MS4 Permit. This permit may be relevant to the project's off-site circulation improvements on roadways under California Department of Transportation (Caltrans) authority. More specifically, stormwater discharges from any state highway improvement project would be regulated under the Statewide Caltrans NPDES Permit, Order No. 2012-0011-DWQ, effective July 1, 2013. This permit regulates stormwater discharges from all Caltrans-owned MS4s and maintenance facilities, but does not regulate discharges from Caltrans construction activities (which are regulated under the Construction General Permit). The permit contains specific requirements for new development and redevelopment projects within the Caltrans right-of-way implemented by both Caltrans and outside, "non-department" parties. These requirements include implementation of pollution prevention BMPs during project planning and design, post-construction stormwater treatment controls, and hydromodification control measures, as well as O&M of post-construction BMPs.

California Department of Fish and Wildlife Lake or Streambed Alteration Agreement

The California Department of Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the law requires the proponent of a project that may impact a river, stream, or lake to notify CDFW before beginning the project. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation.

If CDFW determines that the proposed project may substantially adversely affect a river, stream, or lake and associated fish and wildlife resources, a Lake or Streambed Alteration Agreement would be required. If an agreement is required, CDFW would conduct an on-site inspection, and submit a draft agreement to the project applicant. The agreement would include all reasonable conditions necessary to protect those resource and must comply with CEQA.

Cobey–Alquist Floodplain Management Act of 1965

Under the Cobey–Alquist Floodplain Management Act, local governments are encouraged to plan, adopt, and enforce land use regulations for floodplain management, in order to protect people and property from flooding hazards. This Act also identifies requirements that jurisdictions must meet in order to receive state financial assistance for flood control. The Act supports restrictive general plan policies and zoning provisions with respect to floodplain management. Policies and programs providing for protection and prevention of community flood hazards should be incorporated into the Safety Element of the jurisdiction's General Plan. Further, floodways and floodplain

boundaries should be designated and a consistent land use designation given to affected lands in the General Plan Land Use Element (including its diagram).

California Sustainable Groundwater Act

The Sustainable Groundwater Management Act (SGMA) is a package of three bills (AB 1739, Senate Bill (SB) 1168, and SB 1319) that provides local agencies with a framework for managing groundwater basins in a sustainable manner. The SGMA establishes minimum standards for sustainable groundwater management, roles and responsibilities for local agencies that manage groundwater resources, as well as priorities and timelines to achieve sustainable groundwater management within 20 years of adoption of a Groundwater Sustainability Plan. Central to the SGMA is the identification of critically over-drafted basins and the prioritization of groundwater basins, the establishment of Groundwater Sustainability Agencies (GSAs), and the preparation and implementation of Groundwater Sustainability Plans (GSPs) for medium priority, high priority and critically overdrafted basins. GSAs must be formed by June 30, 2017; and GSPs must consider all beneficial uses and users of groundwater in the basin, as well as include measureable objectives and interim milestones that ensure basin sustainability. A basin may be managed by a single GSP or multiple coordinated GSPs.

At the state level, DWR has the primary role in the implementation, administration, and oversight of the SGMA, with the SWRCB stepping in should a local agency be found to not be managing groundwater in a sustainable manner. DWR recently approved regulations and guidelines for the implementation of the SGMA. The Sacramento Valley Groundwater Basin, North American subbasin (DWR Basin No. 5-21.64) is a high priority basin and will eventually be managed under a GSP. A GSA has not yet been formed for the portion of the subbasin underlying the proposed project. Medium and high priority basins which are not critically over drafted must be managed under a GSP by January 31, 2022. Until a GSP is adopted by a GSA, the existing groundwater management plans applicable to the area would still govern (described in Section 4.9.2.3, Local).

SBx7-7 Urban Water Management Plans

SBx7-7, which became effective on February 3, 2010, is the water conservation component to the Delta legislative package. It seeks to implement water use reduction goals established in 2008 to achieve a 20% statewide reduction in urban per capita water use by December 31, 2020. The bill requires each urban retail water supplier to develop urban water use targets to help meet the 20% goal by 2020 and an interim 10% goal by 2015. The bill establishes methods for urban retail water suppliers to determine targets to help achieve water reduction targets. The retail water supplier must select one of the four compliance options. The retail agency may choose to comply with SBx7-7 as an individual or as a region in collaboration with other water suppliers.

Under the regional compliance option, the retail water supplier still has to report the water use target for its individual service area. The bill also includes reporting requirements in the 2010, 2015, and 2020 Urban Water Management Plans.

Central Valley Flood Protection Board (CVFPB)

The Central Valley Flood Protection Board (CVFPB) is the State regulatory agency responsible for ensuring that appropriate standards are met for the construction, maintenance, and protection of the flood control system that protects life, property, and wildlife habitat in California's vast and diverse Central Valley from the devastating effects of flooding. CVFPB issues encroachment permits and works with other agencies to improve the flood protection structures, enforces removal of problematic encroachments, and keeps watch over the Central Valley's continually improving flood management system.

A CVFPB Permit is required for every proposal or plan of work, including the placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment or works of any kind, and including the planting, excavation, or removal of vegetation, and any repair or maintenance that involves cutting into the levee, wholly or in part within any area for which there is an Adopted Plan of Flood Control, as defined by California Code of Regulations (CCR) Title 23, Division 1, must be approved by the CVFPB prior to commencement of work. In general, if the proposed work is located within the State Plan of Flood Control, within 300 feet of a Designated Floodway (DF) that has been adopted by the CVFPB, or within 30 feet from the banks of a CVFPB Regulated Stream per CCR, Title 23, Section 112, Table 8.1, a permit would be required. Both Auburn and Markham Ravines are regulated stream, but neither are designated floodways (DWR 2017b).

Auburn Ravine is a regulated stream within Placer County per CCR, Title 23, Section 112, Table 8.1, therefore, the proposed project may be required to obtain an encroachment permit from the CVFPB for work affecting Auburn Ravine.

4.9.2.3 Local

The following local/regional regulations pertaining to hydrology and water quality would apply to the proposed project.

General Plan

The Public Facilities & Services Element of the City of Lincoln General Plan provides objectives, policies, and programs regarding stormwater drainage, including the following applicable to proposed development:

GOAL PFS-1 General. To ensure that adequate public services and facilities are provided to meet the needs of residents of the city.

Policy PFS-1.3 Conditions of Approval. During the development review process, the City shall not approve new development unless the following conditions are met:

- The applicant can demonstrate that all necessary infrastructure will be installed or adequately financed;
- Infrastructure improvements are consistent with City infrastructure plans; and
- Infrastructure improvements incorporate a range of feasible measures that can be implemented to reduce public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required improvement.

PFS-1.4 Compliance with Federal and State Standards for Surface Water Protection. The City shall comply with the requirements of the Clean Water Act and other regulations with the intent of minimizing the discharge of pollutants to surface waters.

GOAL PFS-4 Stormwater Drainage. To ensure provision and sizing of adequate storm drainage facilities to accommodate existing and planned development.

Policy PFS-4.2 Development Requirements. The City shall encourage project designs that minimize drainage concentrations and impervious coverage and avoid floodplain areas and, where feasible, be designed to provide a natural water course appearance.

Policy PFS-4.6 Pre-Project Conditions. The City will require new development to provide storm-water detention sufficient to limit outflow per Figure 7-1 of the City's Stormwater Management Manual (February 1994), or as revised. Master Drainage Plans shall be designed to require new development to provide, or contribute towards, stormwater detention to reduce post-development peak flow from a 100 year event to pre-development flow rate less 10% of the difference between the estimated pre-development and the post-development unmitigated peak flow rates. The Master Drainage Plan shall identify appropriate locations to achieve such post-development flows. This criterion is principally designed to address the 100-year event with appropriate consideration given for the feasibility of mitigating 2-year and 10-year events.

Policy PFS-4.7 Stormwater Runoff. The City shall require new development to provide stormwater-retention sufficient for the incremental runoff from an eight-day 100 year storm.

Policy PFS-4.8 Discharge of Urban Pollutants. The City shall require appropriate runoff control measures as part of future development proposals to minimize discharge of urban pollutants (such as oil and grease) into area drainages.

Policy PFS-4.9 100-year Floodplain. The City shall discourage development or major fill or structural improvements (except for flood control purposes) within the 100-year floodplain as regulated by FEMA. Requests for fill and improvements within the floodplain may be approved by the City based upon a detailed hydraulic volumetric analysis prepared to evaluate impacts and provide for any mitigation measures to be provided as a part of the development to the satisfaction of the City Engineer / Public Works Director. Recreational activities that do not conflict with habitat uses may be permitted within the floodplain.

Policy PFS-4.10 Erosion Control Measures. The City shall require adequate provision of erosion control measures as part of new development to minimize sedimentation of streams and drainage channels.

Policy PFS-4.11 Stormwater Management Manual. The City shall require drainage designs and practices to be in accordance with the Stormwater Management manual of the Placer County Flood Control District unless alternative methods are approved by the City Engineer.

Policy PFS-4.12 Drainage Management Plan Costs. The City shall require that the cost to develop new or modify existing Drainage Management Plans be allocated to applicants proposing development within the City's Sphere of Influence.

Policy PFS-4.14 Bird Attraction. New drainage facilities near the Lincoln Airport influence area will be designed and maintained to avoid attraction and concentration of birds above existing conditions at the project site.

Furthermore, the Open Space & Conservation Element of the City of Lincoln General Plan provides objectives, policies, and programs regarding water resources, including the following applicable to proposed development:

GOAL OSC-4 Water Resources. To preserve and enhance local streams, creeks, and aquifers.

Policy OSC-4.3 Protect Surface Water and Groundwater. The City shall ensure that new development projects do not degrade surface water and groundwater.

Policy OSC-4.4 Protection and Management of Flood Plains. The City shall encourage the protection of 100 year floodplains and where appropriate, obtain public easements

for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access and recreation.

Policy OSC-4.5 Use of Reclaimed Water. The City shall encourage the use of reclaimed water, in place of treated potable water for landscaping and other suitable applications.

Policy OSC-4.6 Best Management Practices. The City shall continue to require the use of feasible and practical best management practices (BMPs) to protect surface water and groundwater from the adverse effects of construction activities and urban runoff. Additionally, The City shall require, as part of its Storm Water NPDES Permit and ordinances, to implement the Pollution Prevention Plan (SWPPP) during construction activities for any improvement projects, new development and redevelopment projects for reducing pollutants to the maximum extent practicable.

Finally, the Health and Safety Element of the City of Lincoln General Plan provides objectives, policies, and programs regarding Flood Hazards, including the following applicable to proposed development:

GOAL HS-6 Flood Hazards. To minimize the risk of life and property of the City’s residents from flood hazards.

Policy HS-6.3 Master Drainage Plans. The City shall require master drainage plans as a condition of approval for large development projects.

Policy HS-6.4 New Residential Construction. The City shall require new residential construction to have its lowest habitable floor elevated above the base flood level elevation, determined by FEMA standards.

Policy HS-6.5 Stream Channels. The City shall prohibit development along stream channels that would reduce the stream capacity, increase erosion, or cause deterioration of the channel.

City of Lincoln Municipal Code

Section 8.60 – Post-Construction Storm Water Runoff Control

This City of Lincoln has adopted Chapter 8.6 of the Municipal Code, which pertains to post-construction storm water runoff control. It establishes the City’s requirement to comply with the NPDES Permit for the City’s storm sewer system (Small MS4 Permit), and establishes stormwater quality design, permitting, management and maintenance requirements for new development and redevelopment projects. The ordinance incorporates the requirement for the development and a storm water quality plan (SWQP) for regulated projects (including the

proposed project), requires implementation of stormwater quality best management practices and low-impact development designs consistent with the City’s Storm Water Management Plan, and establishes administrative review, approval and inspection authority over project-specific post-construction SWQPs. Design standards include performance criteria as outlined in the Small MS4 permits (described in greater detail above), including the requirement to not exceed pre-development discharge rates to the storm drain system and to minimize to the extent practicable discharge of pollutants to the storm drain system. The ordinance also requires project applicants to submit an operations and maintenance plan for approval by the city to outline how it intends to ensure the long-term functionality and effectiveness of storm water quality BMPs and low impact designs proposed in the SWQP.

Chapter 13.30 – Construction Storm Water Runoff Control

Section 13.30.100 requires development disturbing more than one acre to receive coverage under the SWRCB’s current construction general permit. To obtain coverage under the permit, the applicant must prepare and submit a SWPPP to the City prior to issuance of a grading permit or encroachment permit. Section 13.30.100 also requires applicants to prepare an erosion and sedimentation control plan that identifies the BMPs that will be implemented throughout construction to control pollutant discharges. The erosion and sedimentation control plan must comply with the requirements of Municipal Code Chapter 13.30 as well as the City of Lincoln Department of Public Works’ Design Criteria and Procedures Manual, and it must be prepared and submitted concurrently with the grading plan.

The erosion and sedimentation control plan identifies the receiving waters for the project, the project’s risk level for stormwater pollutant discharge, drainage facility and BMP sizing information, the quantity and locations of storm water run-on locations, and the location of discharge, sampling, and monitoring points. The rationale for selecting or rejecting BMPs, including soil loss calculations, must be included in the erosion and sedimentation control plan.

Section 15.04.200 – California Building Code, Appendix J Amended—Excavation and Grading

Section 15.04.200 adopts and amends the California Building Code standards for excavation and grading. The ordinance ensures that proper administrative and engineering practices are implemented to minimize on-site and off-site hazards associated with grading. The City requires projects performing any grading over ten cubic yards to obtain a grading permit from the City Engineer. This section requires adherence to the standards set forth in the City of Lincoln Department of Public Works’ Design Criteria and Procedures Manual.

Section 15.32 – Flood Damage Prevention

The City’s floodplain management regulations are included in Section 15.32 of the Municipal Code, and are based on the California Model Floodplain Management Ordinance for Non

Coastal Communities, dated December 2006. The ordinance establishes a floodplain administrator who reviews projects within special flood hazard zones to ensure that development would not expose persons or structures to an unacceptable flood risk or adversely affect the capacity of a floodway. Any modifications within the FEMA mapped floodplain of Creek or Ravine is subject this ordinance, the requirements of the “Storm Water Management Manual”, and the design standards of the City of Lincoln.

Section 17.28.330 – Lot Drainage and Erosion Control

Section 17.28.330 stipulates that lots shall be graded to provide adequate drainage, and that erosion control measures must be implemented.

City of Lincoln Department of Public Works Design Criteria and Procedures Manual

The Design Criteria and Procedures Manual establishes the City’s standards for the preparation, submittal, and approval of development plans. The Manual includes specifications for proposed drainage systems and grading plans. Applicants are required to prepare an erosion and sedimentation control plan to be submitted concurrently with improvement and/or grading plans. The erosion and sedimentation control plan must include a revegetation plan, a runoff/drainage control plan, and the phasing of erosion control measures. The Manual provides standard conditions that should be included on the erosion and sedimentation control plan, including timing and methods for soil stabilization, natural drainage protection measures, and requirements for construction staging. As specified in the Manual, the proposed Specific Plan would establish the City’s authority for enforcement of grading standards (City of Lincoln 2004).

West Placer County Storm Water Quality Design Manual

The City has coverage under the Phase II Small MS4 General Permit that was adopted by the State Water Resources Control Board (Order No. 2013-0001 DWQ, effective July 1, 2013). The Permit requires the City to have a stormwater program that controls the discharge of pollutants into the City's storm drainage system and our waterways. The City's Stormwater Program is multi-faceted and includes the following components:

- Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction
- Pollution Prevention and Housekeeping
- Post Construction

- Program Effectiveness and Assessment

The *West Placer County Storm Water Quality Design Manual* is the region's guidance document for the development and implementation of LID design standards to reduce runoff, treat storm water, and provide baseline hydromodification management. The manual is a regulatory compliance tool that addresses the requirements of the Small MS4 Permit, and provides developers of regulated projects with a compliance map, template and guidance for the development of project specific storm water quality plans (SWQP). The proposed project is within the area governed by the Small MS4 Permit and thus is required by the City of Lincoln to develop and submit a project-specific SWQP.

4.9.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to hydrology and water quality are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hydrology and water quality would occur if the project would:

1. Violate any water quality standards or waste discharge requirements.
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner which would result in substantial erosion or siltation on or off site.
4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.
5. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
6. Otherwise substantially degrade water quality.
7. Place housing within a 100-year flood hazard areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.
8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

10. Result in inundation by seiche, tsunami, or mudflow.

As described in Section 4.9.1, because of the location of the proposed project (i.e., not near a coast, adjacent to a large body of water, in hilly terrain, or downstream of a major reservoir), it is not subject to other types of flooding including tsunami, seiche, mudflow, or inundation from dam or levee failure. These impacts are therefore not discussed further.

4.9.4 Impacts Analysis

4.9.4.1 Methods of Analysis

Hydrology and water quality impacts were evaluated in the Master Drainage Study and the Post-Construction Storm Water Quality Plan for the proposed project (Appendix F of this EIR). The impact analysis below considers compliance with regulations pertaining to water quality and implementation of the City's standard conditions of approval for subdivisions as part of the proposed project (described in Section 3.6 and 4.9.2.3). Impact determinations are made based on both the magnitude of project-related change from existing conditions, as well as the effectiveness of proposed drainage designs and stormwater quality BMPs, as described in Appendix F, in addressing the applicable criteria in Appendix G of the CEQA Guidelines.

4.9.4.2 Analysis

Impact 4.9-1: The project would potentially violate water quality standards or waste discharge requirements.

The SWRCB and the RWQCB are responsible for ensuring implementation and compliance with the provisions of the federal and state Clean Water Act and the NPDES permit. The City of Lincoln maintains its compliance with the Small MS4 Permit by requiring developers to comply with the West Placer County Storm Water Quality Design Manual, the City of Lincoln Stormwater Management Plan, as well as ordinances in the City's Municipal Code. Stormwater quality BMPs would be required during construction in accordance with SWRCB Construction General Permit (SWRCB Order No. 2009-0009-DWQ/ CAS000002, as amended) and Section 13.3 of the City's Municipal Code (Construction Storm Water Runoff Control). Post-construction BMPs would need to be incorporated into the project design and operations in accordance with the Small MS4 Permit (SWRCB Water Quality Order 2013-0001-DWQ/ CAS000004, as amended) and Section 8.6 of the City's Municipal Code (Post-Construction Storm Water Runoff Control).

All non-stormwater discharges would be sent to the City's municipal sewer system, and thus would not violate waste discharge requirements. The project does not propose any on-site treatment of sanitary sewage or alternative means of wastewater disposal (e.g., septic systems).

Per Section 8.6 of the City's Municipal Code (Sewage Facility Regulations), wastewater from certain food service and service-commercial facilities with elevated concentrations of fats oils, or greases; high suspended solids or biochemical oxygen demand; highly acidic or basic waters; or other hazardous substances would require a permit from the City. The permit requires pre-treatment (e.g., grease, oil and sand interceptors) prior to discharge to the sanitary sewer system. Proposed commercial uses, if they include facilities such as restaurants, gas stations, automotive services, etc., would be required to show adequate pre-treatment systems have been installed prior to occupancy and approval of a sewer connection permit. This process ensures that the City of Lincoln's Wastewater Treatment and Reclamation Facility (operated by the Department of Public Works under a separate NPDES Permit), can continue to provide adequate treatment and meet the water quality standards and limits within its NPDES Permit. See Section 4.17 for discussion of utilities/service systems impacts.

The following discussion addresses stormwater quality impacts during both construction and operations.

Construction

Construction of the project would result in earth disturbing activities such as site clearing and grading for construction of roads, parking areas, building pads, and park areas. Disturbed areas exposed to rainfall could lead to an increase in erosion and the discharge of sediment to receiving waters resulting in a degradation of water quality. Additional pollutants can be introduced during construction from vehicular use, construction materials, and construction waste products. Pollutants typically present on construction sites include petroleum products and heavy metals from equipment, and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Construction activities could result in water quality degradation if runoff entering receiving waters contains pollutants in sufficient quantities to exceed water quality objectives defined in the Basin Plan or TMDLs established under CWA Section 303(d). Impacts from construction-related activities would generally be short term and of limited duration.

Because implementation of the proposed project would collectively require construction activities resulting in a land disturbance of more than 1 acre, the project applicant is required to obtain coverage under the Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended), which pertains to pollution from grading and project construction. Coverage under the Construction General Permit requires a qualified individual (as defined by the SWRCB) to prepare a Stormwater Pollution Prevention Plan (SWPPP) to address the potential for construction-related activities to contribute to pollutants within the project's receiving waterways. The SWPPP must describe the type, location and function of stormwater BMPs to be implemented, and must demonstrate that the combination of BMPs selected are adequate to meet

the discharge prohibitions, effluent standards, and receiving water limitations contained in the Construction General Permit.

The following list includes examples of construction water quality BMPs that are standard for most construction sites subject to the Construction General Permit:

- Silt fences and/or fiber rolls installed along limits of work and/or the project construction site;
- Stockpile containment and exposed soil stabilization structures (e.g., visqueen, fiber rolls, gravel bags and/or hydroseed);
- Runoff control devices (e.g., fiber rolls, gravel bag barriers/chevrons, etc.) used during construction phases conducted during the rainy season;
- Wind erosion (dust) controls;
- Tracking controls at the site entrance, including regular street sweeping and tire washes for equipment;
- Establishment of vehicle fueling and maintenance areas and material storage areas that are either covered or are designed to control runoff;
- Proper waste/trash management; and
- Regular inspections and maintenance of BMPs.

These BMPs would be refined and/or added to, as necessary, by a qualified SWPPP professional to meet the performance standards in the Construction General Permit.

To obtain coverage under the Construction General Permit, the project applicant or its construction contractor must submit to the SWRCB a Notice of Intent and associated permit registration documents, including a SWPPP and site plan, and must obtain a Waste Discharge Identification Number. As a standard condition of approval, the project applicant is also required to provide the SWPPP for review by the City Engineer in conjunction with the submittal of the Improvement Plans, Grading Plans, and Final Map. In addition, all earthwork, grading, trenching, backfilling and compaction operations must be conducted in accordance with the Section 13.3 (Construction Storm Water Runoff Control), Section 15.04.200 (California Building Code, Appendix J Amended—Excavation and Grading), Section 17.28.330 (Lot Drainage and Erosion Control) and other applicable sections of the City’s Municipal Code.

The BMPs required for coverage under the Construction General Permit and the erosion control provisions contained in City ordinances would require measures to prevent construction-related contaminants from reaching impaired surface waters and contributing to water quality impacts within Auburn Ravine, Markham Ravine, and/or the Sacramento River and downstream receiving waters. Compliance with the Construction General Permit and City ordinances

governing construction runoff control would result in the implementation of feasible and effective means of eliminating or substantially reducing construction-related pollutants in stormwater runoff. For these reasons, water quality impacts resulting from construction-related activities and ground disturbances would be **less than significant**.

Operation and Maintenance

Implementation of the proposed project would convert the existing agricultural lands to urban uses. The increase in impervious area created by the proposed project, as well as on-site activities and uses, could alter the types and levels of pollutants that could be present in project site runoff associated with project operation. Runoff from building rooftops, walkways, parking lots, and landscaped areas can contain nonpoint source pollutants such as oil, grease, heavy metals, pesticides, herbicides, fertilizers, and sediment. Concentrations of pollutants carried in urban runoff are extremely variable, depending on factors such as the following:

- Volume of runoff reaching the storm drains;
- Time since the last rainfall;
- Relative mix of land uses and densities; and
- Degree to which street cleaning occurs.

As described above, the project area flows into two different watersheds, with the majority of the project site flowing into the Markham Ravine watershed, with the southeast portions of the project (i.e., the eastern-most parcel of the Peery-Arrillaga Property) flowing into the Auburn Ravine watershed. The Phase I Environmental Site Assessment conducted for the project site did not report any documentation or physical evidence of historical or current recognized environmental conditions on the site, which means that runoff under current conditions is not expected to contain significant sources of water quality pollutants. However, the past agricultural uses of the site include agricultural crops and cattle ranching from 1910 to the present, which means that low levels of residual nutrients/fertilizers may remain within site soils. Given surface soils are exposed over the entire site, stormwater runoff may contain levels of sediment and/or nutrients characteristic of agricultural land uses.

Where roads, driveways, commercial uses, and residences are proposed, the surface soils that are now exposed to stormwater runoff would be stripped and replaced with engineered fills that meet geotechnical specifications and would become impervious (covered by proposed new development). At full build-out, the project is anticipated to consist of up to 4,757,928 square feet (109 acres) of impervious surfaces (Appendix F). Given the proposed project area is 198 acres in size, this results in a proposed total imperviousness of approximately 55%. The distribution of impervious surfaces would change substantially based on the proposed land uses,

with commercial uses having the highest degree of impervious surfaces and open space uses having the least. The project's Drainage Master Plan modeled proposed land uses as having the following percentages of impervious cover: 90% for commercial, 40% for low density residential, 5% for parks, 0% for open space, and 85% for roadways.

The new site configuration would reduce the exposure of soils containing nutrients/fertilizers to stormwater runoff, and would likely reduce the turbidity levels of runoff when compared to the current agricultural use due to reduction in exposed soils. However, it would also introduce new uses and activities that have the potential to degrade the quality of stormwater runoff. The primary pollutants of concern for a low-density residential uses are associated with landscaping and landscape maintenance (e.g., sediment, improper/excessive use of pesticides, and/or fertilizers/nutrients), outdoor cleaning and maintenance activities, and/or improper waste management (e.g., fugitive litter/trash). Concerns for commercial land uses are similar but more intense, and also include uncovered parking areas and delivery loading/unloading areas (e.g., trash, leaking fuels, or fluids), and use/transport of waste and/or hazardous materials. Collectively, these uses and activities can result in an increase in "non-point" sources of pollutants within stormwater runoff. Furthermore, the increase in impervious surfaces also increases the velocity and volume of runoff and accelerates the arrival times of peak flows to area creeks and drainages. This could cause in-stream impacts from excessive erosion or channel scour that would otherwise not occur from any given storm event (i.e., hydromodification impacts).

The aforementioned impacts to Auburn and Markham Ravine would be tempered when considering the size of the project compared to the size of the watershed for each waterway (shown in Table 4.9-1). For example, the area contribution of the proposed project to Markham Ravine is less than 1% of the watershed. Nevertheless, because the cumulative effects of past projects have resulted in substantial water quality problems in the region's major waterways, and because water quality problems are generally cumulative in nature, the City's ordinances and approval process, the Small MS4 Permit, and drainage design standards require developers to design and maintain projects in a manner that reduces pollutant concentrations within stormwater discharges to the maximum extent practicable.

Accordingly, the proposed project's Master Drainage Study and SWQP, included as Appendix F, has provided the analysis necessary to compare pre- and post-development peak flows and provide basin sizing criteria based on the results. Using methods described in Section 4.9.1.3, the proposed project was divided into numerous drainage areas under both pre- and post-development conditions and hydrologic models were run to compare how proposed land uses would increase runoff rates under various storm scenarios, including the 2-, 10-, and 100-year storm events. The results show that without inclusion of water quality basins and other BMPs, runoff would increase substantially compared to existing conditions. To provide the necessary retention and treatment, the project has been designed with a system of stormwater inlets,

collector drains, trunk lines, 7 water quality basins and two vegetated swales to provide the necessary level of treatment for the project's six stormwater outfalls. The project's drainage management areas, water quality basins and outfalls are shown in Figure 4.9-3. The water quality basins have been located and sized to capture the required water quality design volume, as determined based on the standards contained in the Small MS4 Permit and the West Placer County Storm Water Quality Design Manual (Appendix F). The required storage volume for these basins is 14.8 acre-feet, as shown in Table 4.9-5.

**Table 4.9-5
Required Attenuation Creation Area (100-Year)**

Location Name	Description	Pre-Project Net 100-year Storage (acre-feet)	Pre-Project Net 100-year Storage (acre-feet)	Required Storage (acre-feet)
<i>Auburn Ravine</i>				
DB1	Detention Basin to the south of the Peery eastern residential property	5.6	5.6	0
<i>Markham Ravine</i>				
DB2	Detention Basin to the south of the Peery western residential property	0	3.6	3.6
DB3	Detention Basin to the northwest of the Peery western residential property	0	0.6	0.6
DB4	Detention Basin to the northwest corner of the Peery commercial property	0	0.8	0.8
DB5	Detention Basin adjacent to Nelson Lane and the Peery commercial property	0	1.5	1.5
DB6	Detention Basin in the center of the northern portion of the Gill property	0	5.3	5.3
DB7	Detention Basin in the south of the Gill northern commercial property	0	3	3
Total On-site Storage Change				14.8

Source: Appendix F (Frayji Design Group 2016)

It is important that stormwater quality basins not completely cut off flow from the site so that the project does not excessively reduce the natural flows that support flora and fauna within the riparian corridors of Auburn Ravine and Markham Ravine. In addition to providing retention and treatment for peak storm event, the drainage design also includes provision for such “maintenance” flows, which involves post-treatment diversion of flow to the existing culvert crossings under Nelson Lane. This feature would ensure that normal and low-flows that currently support the riparian corridor are not totally eliminated by the project's water quality basins.

Furthermore, the proposed project's SWQP requires the implementation of several source control measures intended to prevent or reduce the potential for release of pollutants to stormwater runoff (outlined in Form 3-3 of Appendix F). These include requiring storage of materials

indoors with proper seals and/or secondary containment; following manufacturer recommendations for use of outdoor pesticide use; plumbing interior floor drains, loading bays and other areas that may collect anything other than storm water runoff (e.g., wash water, sumps, fuel dispensing areas, HVAC drain lines, etc.) to the sanitary sewer system; and proper enclosure and management of trash bins. In addition, the SWQP calculates the water quality flow volume (ft³), the water quality flow rate (cfs), and the hydromodification targets that would be achieved for each drainage management area outlined on-site. Applicable LID Measures by development type are shown in Table 4.9-6.

Table 4.9-6
Applicable LID Measures by Development Type

LID Measure Descriptions	Benefits Description	Development Land Use Type which is applicable to LID Measure
Disconnected roof drains	Water running off of the impervious roof system is treated by biological filtration, and the runoff gains an opportunity to partially infiltrate.	Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Public/Quasi Public, Parks
Pervious or partially paved driveways & porous pavement areas, and soil confinement *	Pavement alternatives offer the opportunity for partial or complete infiltration of runoff.	Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Public/Quasi Public, Park Roadway
Separated sidewalks & Pavement Disconnection and eliminated pavement	Runoff from the impervious sidewalk, driveway, and pavement areas can be treated and infiltrated in landscape areas before entering the gutter pan and storm drain systems. (including residential walkways) In some areas of the development, un-necessary pavement may also be eliminated for stormwater benefit.	Low Density Residential, Medium Density Residential, High Density Residential Commercial, Public/Quasi Public, Park, Roadway
Tree Planting and Canopy Preservation	The creation and preservation of tree canopy reduces the rate and amount of total runoff which enters the storm drain systems.	Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Public/Quasi Public Park, Roadway
Soil amendments in landscaped areas and storm water planters.	The addition of organic material to impervious soils can add voids which can absorb runoff preventing it from entering storm drain systems. In residential areas, this may include amending a landscape strip adjacent to the street or pavement areas where large amounts of runoff can be intercepted from the lots. In commercial areas this is likely to be limited to stormwater planter areas. At roadways this will be used where roadway flows are diverted into the landscape areas.	Low Density Residential, Medium Density Residential, High Density Residential, Commercial, Public/Quasi Public, Park Roadway
Stream Buffer **	Sheet flows can be discharged into the stream corridors (at the surface overbank) directly providing significant treatment and infiltration opportunity prior to entering the streams.	High Density Residential **, Commercial **, Park **, Public/Quasi Public **
Vegetated Swales	*** Discharge of runoff into vegetated swales provides additional treatment in the in the treatment train, and	Low Density Residential, Medium Density Residential, High Density

Table 4.9-6
Applicable LID Measures by Development Type

LID Measure Descriptions	Benefits Description	Development Land Use Type which is applicable to LID Measure
	opportunities for additional infiltration of runoff waters	Residential, Commercial, Public/Quasi Public Park, Roadway
Stormwater Retention	These measures remove stormwater from the system, and trap constituents at the stormwater retention location such that it is not discharged.	These are used in combination with detention basins in this project. They are applicable

Notes:

* The use of pervious pavement and other infiltration oriented paving systems are dependent on infiltration capacity of the underlying soils, and may not be used everywhere. Geotechnical investigations are necessary to support the use of these systems.

** Opportunities for the use of this measure and land use combination are extremely limited within the proposed project area

*** There are two vegetated swales proposed.

Source: Appendix F (Frayji Design Group 2016)

The Master Drainage Study and preliminary SWQP demonstrates that overall drainage patterns will not be substantially altered, and adequately provides volume and flow reduction targets that water quality BMPs, including basins, must achieve. However, the proposed project's impacts with regard to water quality standards and waste discharge requirements remains **potentially significant** because the SQMP included in Appendix F is preliminary in nature and does not identify the exact type, location or design of water quality BMPs and LID features to a sufficient level of detail to ensure impacts would be substantially reduced or avoided. With implementation of Mitigation Measure HYD-1, parcel developers would be required to submit parcel-level SQMPs that identify water quality BMPs and LID designs that are the specific to design-level grading and building plans, and customized for the proposed land use (e.g., commercial or residential). In addition, to address particularly sensitive locations along Auburn and Markham Ravine, where standard water quality measures might not suffice, implementation of MM-BIO-12 includes additional measures to ensure work in proximity to the ravines do not adversely affect their riparian corridors. This includes seasonal work windows, avoidance measures, additional erosion controls, and post-construction stabilization measures.

For these reasons, the impacts of operation and maintenance of the proposed project on stormwater quality would be **less than significant with mitigation**.

Impact 4.4-2: The project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

The proposed project is located within the 548 square-mile North American River Groundwater Sub-Basin (DWR Sub-Basin No. 5-21.64) underlying western Placer County. Impacts of the project on groundwater resources include (a) the potential for construction of impervious surfaces to interfere with groundwater recharge on-site that otherwise could occur on an undeveloped site, and (b) the potential for the project's water demands to indirectly deplete or lower the level of groundwater aquifers relied upon by other users. On-site groundwater wells are not proposed as a means of supplying the project's water demands, so there would be no localized impacts related to local lowering of the water table. Indirect impacts related to consumptive use of groundwater would be limited to the wells that supply the City's municipal water system.

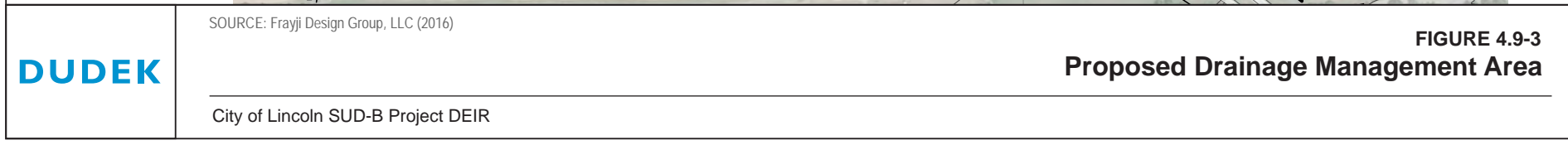
Groundwater Recharge

At full build-out, the project is anticipated to consist of up to 4,757,928 square feet (109 acres) of impervious surfaces (Appendix F). Given the proposed project area is 198 acres in size, this results in a proposed total imperviousness of approximately 55%. As discussed under Impact 4.9-1, the project proposes seven water quality basins and two vegetated swales to retain and treat the increase in runoff that the impervious surfaces would cause. In addition, parcel level LID features would be incorporated to further reduce the amount of water that is translated into runoff (as opposed to ponding and percolating into the underlying groundwater table). According to the *Western Placer County Groundwater Management Plan* (MWH 2007), recharge to the underlying basin occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly along the Feather, Bear, American, and Sacramento River channels. Additional recharge occurs along the eastern boundary of the Sub-Basin within western Placer County at the transition point from the consolidated rocks of the Sierra Nevada to the alluvial deposited basin sediments (where the semi-confined Mehrten formation is exposed at the ground surface) (MWH 2007). Some recharge occurs from deep percolation of rainfall in agricultural areas, but is a small contributor when compared to the aforementioned sources.

Given the proposed project is not located within an area that is a primary contributor to groundwater recharge, that the project proposes LID designs which would encourage percolation of runoff, and that it makes up less than 0.1% of the surface area of the North American River Groundwater Sub-Basin, the impacts of the proposed project on groundwater recharge would be negligible, and **less than significant**.

Aquifer Depletion / Groundwater Levels

To the extent municipal water service provided by the City of Lincoln comes from groundwater wells, the proposed project's water demands could have an indirect effect on groundwater within the North American River Groundwater Sub-Basin.



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The project's Draft Water Supply Assessment (WSA) (prepared per Senate Bill 610), estimates the project would have a total water demand of 317 acre-feet per year at full build-out (Tully & Young 2017, included as Appendix I of the EIR). The City's primary source of water is treated surface water from the PCWA, with groundwater consisting of up to 10% of the supply in normal years. The City relies on five groundwater wells with a combined capacity of about 3 million gallons per day (assuming 8.5 hours/day of operation) to supplement the primary surface water source from PCWA, and considers these wells an important backup source of water during extended drought periods. It is expected that the wells can provide up to 30% of the City's service area demand in the event of a drought (Tully & Young 2017).

In the context of the City's water service area, while increased demands associated with urban development are expected, the conversion of agricultural uses to urban uses is expected to decrease overall demands on the groundwater basin (Tully & Young 2017). This is because the water demands from irrigation are generally much higher on a per-acre basis than urban water demands, and are supplied in many cases by private groundwater wells that are un-metered. The project could indirectly require about 32 acre-feet of groundwater during normal years (based on 10% groundwater in municipal water supply), and up to 95 acre-feet of groundwater in drought periods (based on 30% groundwater in municipal water supply). The WSA estimates that the proposed project in combination with planned growth within the City of Lincoln would account for an increase in groundwater pumping by approximately 1,100 acre-feet by 2040 (Tully & Young 2017). Within the City's service area, the project-related increase in groundwater use would be counter balanced or exceeded by concurrent reductions in agricultural groundwater use. Groundwater elevations for the past 25 years have not decreased considerably in western Placer County, and have actually risen in several locations.

Furthermore, the North American River Groundwater Sub-Basin is managed under several groundwater management plans, including the *City of Lincoln Groundwater Management Plan* and the *Western Placer County Groundwater Management Plan* (MWH 2007). The City's mission for groundwater, as established in its groundwater management plan, is to "ensure a viable resource for use by the City (Lincoln) to meet backup, emergency and peak demands without adversely affecting adjacent areas." With assistance from an AB303 grant from the DWR, the City installed five new multi-completion monitoring wells in 2005 to aid in basin management activities. The *Lincoln Groundwater Management Plan* contains the following Basin Management Objectives (BMOs) (MWH 2007):

- Maintain groundwater elevations at a level that would ensure an adequate groundwater supply for backup, emergency and peak demands, without causing significant adverse impacts to adjacent areas.
- Preserve overall groundwater quality by stabilizing existing groundwater contaminant migration, avoiding known contaminated areas, and protecting recharge areas.

- Ensure that the direction of groundwater flow continues its southwesterly flow pattern despite additional groundwater extraction or other potential influences.

With the implementation of the 2014 Sustainable Groundwater Management Act (SGMA), groundwater usage would be further monitored and managed in a manner that seeks sustainable groundwater use by 2042. The Sacramento Valley Groundwater Basin, North American subbasin (DWR Basin No. 5-21.64) is a high priority basin that must be managed under a groundwater sustainability plan per SGMA. Medium and high priority basins which are not critically overdrafted must be managed under a Groundwater Sustainability Plan by January 31, 2022.

Given the replacement of agricultural land uses with urban uses would result in an overall decrease in groundwater use within the City's service area, and given the City actively manages groundwater resources, limiting extraction to 10% under normal years, and 30% under drought scenarios, the proposed project is not expected to have significant indirect impacts on aquifer depletion or groundwater levels. The impact would be **less than significant**.

Impact 4.9-3: The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner which would result in substantial erosion or siltation on- or off-site.

The proposed project does not include any structures or fill that would alter the course of Markham or Auburn Ravines. As described under Impact 4.9-1, the proposed project has maintained the general drainage pattern of the area in terms of keeping the same areas flowing to the same ravines (i.e., there are no substantial changes between the pre- and post-project watershed area draining to each stream).

Though the project would not change the overall drainage pattern of the site or area or alter the course of a stream or river, the impervious surfaces proposed would increase the volume and velocity of stormwater runoff if the proposed project was not designed with water quality basins. In this regard, the analysis under Impact 4.9-1 is equally applicable to this impact and the impact is **potentially significant**. The analysis concludes that to ensure LID designs are implemented and that hydromodification standards are met, Mitigation Measure HYD-1 is required. Therefore, for the same reasons discussed under Impact 4.9-1, the impact would be **less than significant with mitigation**.

Impact 4.9-4: The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

Because alterations of drainage patterns can result in both erosion or siltation as well as flooding on- or off-site, the analysis associated with the criterion is the same as that provided above for Impact 4.9-3, with one exception related to off-site flooding from the cumulative effects of

development within the watershed area of the Cross Canal (this area is shown in Figure 4.9-1). The Cross Canal Watershed Study identified that development within its watersheds worsen a flooding problem within Sutter County by increasing the runoff volume (CH2MHILL 1992-1994 as cited in Appendix F). The City of Lincoln has implemented a public facilities fee to collect funds and to ultimately build a mitigation facility, currently partially constructed at the Lakeview Farms site, northwest of proposed project. The land use impact for the 8-day, 100-year event was calculated as being 29.70 acre-feet (Appendix F). This impact will be mitigated at the City of Lincoln's Lakeview Farms Facility, once completed. The Lakeview Farms Facility was partially completed with the SR-65 Bypass project and the remainder should be completed by the City of Lincoln once funds are collected for construction. Because the city collects fees from project developers necessary to mitigate this potential impact, the proposed project's impact on flooding in Sutter County along the Cross Canal would be less than significant. Overall, the impact would be **less than significant with mitigation**, since implementation of Mitigation Measure HYD-1 is required to ensure water quality and drainage standards (including hydromodification) are met.

Impact 4.9-5: The project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

The proposed project would significantly increase the amount of impervious cover on the project site, which would cause a significant increase in runoff rates compared to existing rates. As discussed under Impact 4.9-1, the post-project drainage system would collect storm runoff from the development and pass it through water quality BMPs and basins before the flows pass through outfalls and into existing drainage ways. As described in Appendix F, all storm drain pipes associated with the project would be designed to meet drainage standards outlined in Section 10 of the City of Lincoln Design Criteria and Procedures Manual, which states that the size of storm drain pipes and basins must be adequate to avoid flooding of (1) any vehicle lane within arterial roads, and (2) the center 12 feet of major collector streets in a 100-year storm. In addition, residential lots must have pads elevated at least 2 feet above the 100-year base flood elevation, and non-residential projects must have finished floor elevations at least 2 feet above the 100-year base flood elevation. Storm drain pipes and basins would be sized accordingly to satisfy these requirements.

With one exception, runoff from the proposed project boundary outfalls directly into Markham Ravine and Auburn Ravine, which are soft bottomed creeks and not a planned stormwater drainage system. However, one group of outfalls on Markham Ravine is located south of the project and currently flows into the Caltrans SR-65 Right-of-Way. Two existing outfall pipes, a 12" Corrugated Metal Pipe (CMP) and a 18" Reinforced Concrete Pipe (RCP), along with one proposed outfall pipe would carry project flows to the existing drainage ditch along the north side of SR-65, then along that ditch for approximately one mile which ultimately outfalls into

Markham Ravine. These outflows from the proposed project would be treated prior to entering the existing Caltrans ditch and the calculations for this treatment are included in Appendix F. The post-project outfalls which flow into the existing Caltrans ditch would not increase the post-project flows relative to pre-project conditions.

There are no reasons, other than those already discussed under Impact 4.9-1, that the proposed project would substantially add to sources of polluted runoff. Therefore, because the proposed project would not exceed the capacity of the existing or planned stormwater drainage system, the impact would be **less than significant**.

Impact 4.9-6: The project would not otherwise substantially degrade water quality.

There are no reasons, other than those already discussed under Impact 4.9-1, that the proposed project would substantially degrade water quality. The project would have **no impact** with regard to this criterion.

Impact 4.9-7: The project would not place housing within a 100-year flood hazard areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

The proposed project includes residential lots that overlap the Special Flood Hazard Area as mapped by FEMA along Markham Ravine. This includes residential lots 4, 5 and 6 located on the northern-most residential cul-de-sac. However, Section 10 of the City of Lincoln Design Criteria and Procedures Manual requires that all residential lots adjacent to a designated floodplain have pad elevations a minimum of two feet above the 100- year flood plain and that non-residential projects shall have finish floor elevations a minimum of two feet above the 100-year flood plain. As indicated in Appendix F, the proposed project would comply with these requirements. Based on the pre-project 100-year floodplain map in Appendix F, the base flood elevation along Markham Creek within the project is between 110.3 and 110.6 feet amsl, whereas the grading plan shows that the finished elevation of the lots would be 121.5 feet amsl (Appendix F). Therefore, the impact with regard to this criterion would be **less than significant**.

Impact 4.9-8: The project could place within a 100-year flood hazard area structures which would impede or redirect flood flows.

The proposed project would not place structures other than drainage features (which facilitate rather than impede flood flows) within the 100-year floodplain of Auburn Ravine.

However, the northern residential roadway that follows the south side of Markham Ravine, and the southern portion of the commercial lot north of Markham Ravine would require the placement of engineered fill on the outer fringes of the 100-year flood zone. Based on review of preliminary

grading plans, the depth of this fill could be up to 10 feet in places, but would not intersect or affect the normal flow path of Markham Ravine. These encroachments onto the floodplain of Markham Ravine would not impede or redirect flood flows, but could slightly constrict the cross sectional area through which such flows would pass, and result in an increase in the base flood elevation. It is unlikely it would do so to such a degree that it would substantially affect the depth or extent of floodwaters, or newly place private property, private structures, or public facilities within the floodplain. However, this impact is considered **potentially significant** because final improvement plans are required to model the expected impacts.

Implementation of Mitigation Measure HYD-2 requires the project applicant to further evaluate floodplain impacts as a condition of map approval, and requires submittal of a Letter of Map Revision to FEMA if the floodplain depth or limits would change as a result of the project. In addition, the CVFPB has jurisdiction, therefore, the project applicant would be required to obtain an encroachment permit prior to conducting work. Accordingly, the impacts of proposed project with regard to this criterion would be **less than significant with mitigation**.

Impact 4.9-9: The project would not expose people or structures to a significant risk of loss,

4.9.5 Mitigation Measures

The following mitigation measure(s) would reduce the potential for impacts on hydrology and water quality by ensuring that.... Implementation of the following mitigation measure(s) would reduce impacts to a **less-than-significant level**.

HYD-1 Storm Water Quality Plan: Through all phases of construction, development, and operation of the proposed project, the project applicant or designee, homeowners' association (HOA), and/or project contractor, as applicable, shall conduct planning, design, construction, and maintenance activities consistent with the performance criteria, design standards, and water quality best management practices contained in the project's Master Drainage Study and Storm Water Quality Plan (SWQP) (Appendix F). For each phase of development, a project-specific SWQP shall be developed and approved by the City of Lincoln to show parcel-level source control measures, structural treatment controls, and low-impact development (LID) designs, refined as necessary from the master SWQP. This includes meeting or exceeding the requirements of the Small Municipal Separate Storm Sewer System (MS4) Permit (SWRCB Order 2013-0001-DWQ, as amended), Section 8.6 of the City's Municipal Code (Post-Construction Storm Water Runoff Control), and the *West Placer County Storm Water Quality Design Manual*.

The developers, their contractors, and the planned community's governance entities shall be required to select, size, and maintain the LID designs and

implement water quality best management practices (BMPs) to address the following, consistent with Appendix F:

- *Post-Construction Source Control BMPs:* Source control BMPs shall be incorporated into site development plans and maintenance operations to avoid pollutant generating sources and activities. Examples include ensuring the protection of waste and hazardous materials from contact with stormwater, minimizing the use of pesticides and fertilizers through integrated pest management and landscape design, ensuring vehicle maintenance occurs indoors or in covered areas, and plumbing interior floor drains to the sewer system.
- *LID Treatment BMPs:* Site preservation practices coupled with small-scale distributed treatment measures that rely on vegetation and soils, or systems that mimic the treatment obtained by soils and vegetation and soils, shall comprise the LID control approach. LID BMPs include strategies such as stream setbacks, tree and natural landscape preservation, disconnection of impervious surfaces, green roofs, porous pavement, vegetated swales, and infiltration/bioretention swales/basins. LID BMPs shall be sized to treat the volume of stormwater runoff produced from the 85th percentile, 24-hour storm event (water quality design volume), and on-site LID retention BMPs shall be selected to retain the water quality design volume to the extent feasible. If it is infeasible to retain all or part of the water quality design volume, LID biotreatment BMPs shall be used and shall be sized to capture and treat the remaining portion of the water quality design volume. LID BMPs may be located on site or at one of the water quality basins shown in Appendix F. The hydromodification performance standard shall be achieved through on-site or regional LID BMPs, on-site or regional flow control facilities, or a combination thereof.
- *Stormwater Facility Operation and Maintenance:* Depending on the type and location of stormwater quality BMPs, either the commercial land lessor or HOA shall be responsible for maintenance of all LID, treatment, and hydromodification control facilities. Maintenance responsibility shall be documented in the project's conditions, covenants, and restrictions. The commercial leases or HOAs shall also prepare a written operations and maintenance plan that identifies the anticipated inspection/monitoring and maintenance activities and frequencies for each BMP, including coordination requirements with City of Lincoln.

Prior to the vesting of subdivision maps and issuance of building permits, the City of Lincoln shall verify that all applicable water quality measures have been integrated into applicable plans and maintenance agreements in accordance with Appendix F, the MS4 Permit, and City ordinances pertaining to stormwater quality.

HYD-2 Floodplain Modifications. Prior to issuance of grading and building permits, parcel-level drainage studies shall be submitted to the City of Lincoln Public Works Department for review and approval. Structures and fill within the fringes of the Markham Ravine floodplain shall be considered in a detailed hydraulic analysis for their impacts on FEMA base flood elevations and flood extents. Final maps and improvements plans shall not be approved by the City if the analysis shows the project would increase base flood elevations more than 1 foot or otherwise place private property or public facilities at additional risk of flooding in a 100-year storm. In addition, the applicant shall process through FEMA a new Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) in order to map the new floodplain based on the future development and all of the proposed improvements such as bridges and drainage outfalls. FEMA shall be provided with detailed hydraulic analyses, Base Flood Elevation Data and revised floodplain maps showing the new floodplain and floodway limits. The applicant shall also coordinate with the Central Valley Flood Protection Board to obtain a permit prior to City approval of improvement plans.

HYD-3 Implement Mitigation Measure BIO-12. Refer to Section 4.4.

4.9.6 Level of Significance After Mitigation

Implementation of the above mitigation measures would reduce potential impacts on water quality and floodplains to **less-than-significant levels**.

4.9.7 Cumulative Analysis

Impact 4.9-9. The effects of the proposed project, when considered with other projects in the region, could result in a cumulative impact to hydrology and water quality.

Cumulative impacts from development of the project were analyzed in the City's General Plan EIR. The General Plan EIR found that changes to hydrology and water quality as a result of urban development could result in a **potentially significant** impact. Policies adopted in the General Plan and the City's municipal code address the evaluation of development to ensure adequate drainage facilities, the requirement for impact fees to fund storm drain improvements, and provision of storm drain master plans to guide development approvals, and ensure evaluation of drainage patterns, of flood risks, and of the facilities needed to protect water quality and

maintain drainage systems. The proposed project and other potential cumulative projects in the vicinity of the project site, including growth resulting from build-out of the City's General Plan, would be required to comply with the NPDES General Permit for Discharges of Storm Water Discharge Associated with Construction Activities issued by the State Water Resources Control Board. This permit requires projects to implement measures to prevent impacts, individual and cumulative, to water quality during construction. In addition, projects would also be required to comply with the City's NPDES stormwater permit from the Central Valley RWQCB and the associated Stormwater Quality Management Plan, which prevent impacts to water quality after construction of a project. As discussed in the impact analysis above, the proposed detention basins have been designed to address flood control and water quality considerations for the project. Therefore, the potential for cumulative impacts to water quality is less than significant.

The proposed project and other potential projects that could contribute to cumulative impacts would also be subject to local, state, and federal regulations designed to minimize individual and cumulative impacts related to stormwater runoff rates and flooding. Implementation of mitigation measures HYD-1, HYD-2, and HYD-3 would reduce the project's contribution to a level **less than significant with mitigation**.

Mitigation Measures

Implementation of Mitigation Measures HYD-1, HYD-2, and HYD-3.

4.9.8 References

Central Valley RWQCB (California Regional Water Quality Control Board). 2016. *Water Quality Control Plan for the Tulare Lake Basin*. Second edition. Revised July 2016 with Approved Amendments.

City of Lincoln 2008. *City of Lincoln General Plan*. Background Report. March 2008.

Civil Engineering Solutions 2006. Drainage and Surface Waters Impacts and Constraints Summary. Prepared for City of Lincoln General Plan Update. 2004 updated in 2006.

DWR (California Department of Water Resources) 2016. "Floodplain Information." Best Available Maps Viewer accessed at <http://gis.bam.water.ca.gov/bam/> on March 9, 2016.

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DWR 2017b. "Designated Floodways and Regulated Streams." Best Available Maps Viewer accessed at <http://gis.bam.water.ca.gov/bam/> on July 5, 2017.

DWR 2004. “Sacramento Valley Groundwater Basin, South American Subbasin.” California’s Groundwater Bulletin 118. February 2004.

MWH 2007. *Western Placer County Groundwater Management Plan*. Prepared in cooperation between the City of Roseville, Placer County Water Agency, the City of Lincoln, and California American Water. November 2007.

SWRCB (State Water Resources Control Board). 2012. “Final 2012 California Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report)”

USGS (U.S. Geological Survey) 2016. The National Map. National Hydrography Dataset Viewer. Accessed at <http://viewer.nationalmap.gov/viewer/nhd.html?p=nhd> on 3/9/2016.

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4.10 LAND USE AND PLANNING

This section describes the land use and planning issues present in the project area and discusses applicable federal, state, and regional regulations pertaining to land use and planning. This section evaluates the potential effects on land uses associated with development of the SUD-B Northeast Quadrant Specific Plan (proposed project).

Comments received in response to the Notice of Preparation (NOP, see Appendix A) included concerns regarding impacts related to compatibility with surrounding land uses in regards to density and lot size. Comments received from the Placer County Airport Land Use Commission identified that the proposed Specific Plan area is within compatibility zones C1 and C2 of the Placer County Airport Land Use Compatibility Plan and would have to comply with ALUCP intensity requirements and other restrictions on land use. The Placer County Facility Services Department and the Western Placer Waste Management Authority indicated that the proximity and compatibility of the proposed project with the Wastewater Treatment and Reclamation Facility, the Materials Recovery Facility (MRF) and Western Regional Sanitary Landfill should be analyzed.

Information contained in this section is based on reviews of the planning documents governing the proposed Specific Plan area and adjacent areas, primarily the City of Lincoln General Plan 2050 (General Plan). Other sources consulted are listed in Section 4.10.8, References.

4.10.1 Existing Conditions

This section describes the existing land uses on the project site as well as the surrounding land use designations and zoning.

4.10.1.1 Existing Land Uses

The 198.4-acre proposed Specific Plan area (SPA) is located in Placer County immediately west of the City of Lincoln, within the City's Sphere of Influence (SOI). The proposed SPA is bordered by Nicolaus Road to the north, Nelson Lane to the west, Highway 65 Bypass to the south, and the City of Lincoln, including the former Wastewater Treatment Plant, to the east (see **Figure 2-2**).

The proposed SPA is comprised of four parcels that historically have been used for agricultural purposes. The SPA consists of two separate ownerships, the northernmost parcel (APN 021-262-01) is owned by Gill Property Development ("Gill"), while the three southern parcels (APN 021-262-034, 021-264-035, and 009-031-028) are owned by the Peery and Arrillaga trusts ("Peery"). Only parcel 009-031-028, a 1.0 acre parcel, is located within the City limits. The other parcels are outside of the City limits but within the City SOI.

The project site is undeveloped land that is relatively flat and consists of disturbed non-native annual grassland with no structures or buildings present. The Peery property has been used primarily for dry crop farming (i.e., hay). Markham Ravine bisects the northern portion of the site, while a small portion of Auburn Ravine makes up the southeastern boundary of the project site. Oak woodland and riparian habitat are present near the ravines. Various wetlands including seasonal drainages and other wetland resources are present throughout the proposed SPA.

4.10.1.2 Surrounding Land Uses

The proposed SPA is located between the Lincoln Regional Airport and the Highway 65 Bypass along the western edge of the City of Lincoln, as shown in Figure 2-2. Rural residential and agricultural/grazing land is located to the south and west in unincorporated Placer County. Low intensity industrial/manufacturing uses are located north of the SPA, within the City of Lincoln. The former wastewater treatment plant (WWTP) site is located immediately northwest of the SPA. A residential neighborhood, “Park Estates,” is located east of the SPA within the City of Lincoln.

The southern boundary of the Lincoln Regional Airport is located approximately one-half mile north of the project site, and the airport land use compatibility planning zone extends onto a portion of the SPA.

The City of Lincoln Wastewater Treatment and Reclamation Plant, on Fiddymment Road, is located approximately 1.75 miles south of the SPA. The County Materials Recovery Facility (landfill) is located 3 miles south of the SPA.

Proposed Adjacent Land Uses

The City has received an application for development of a residential project, Independence at Lincoln, on the site of the former WWTP, northeast of the SPA. In addition, the proposed Highway 65/Nelson Lane interchange, a joint Caltrans City project, is located adjacent to the southwest corner of the project site. Construction of this project has not yet begun, but is anticipated to be completed by 2025.

4.10.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal regulations pertaining to land use and planning that would apply to the proposed project.

State

Although the State of California has no land use jurisdiction over the project site, the following state regulations pertaining to land use and planning would apply to the proposed project.

Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Act) establishes procedures for changes of organization within local government, including annexations to a City. The Act grants local agency formation commissions (LAFCOs) the power to act on local agency boundary changes in the interest of encouraging the orderly formation and development of local agencies. LAFCO involvement is intended to discourage urban sprawl, preserve open space and agricultural lands, and ensure the efficient provision of government services.

California Government Code Section 65450, et seq.

California Government Code Sections 65450 through 65457 govern the content and consistency of specific plans with the adopted general plan of the jurisdiction within which it is located. Specific plans shall include text and a diagram(s) which include the following in detail: (1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan; The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan; Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable; and a program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out these components and facilities.

SB 375

Senate Bill No. 375, also known as the Sustainable Communities and Climate Protection Act of 2008, was passed on September 30, 2008 establishing requirements related greenhouse gas emissions from passenger vehicles. SB 375 requires the California Air Resources Board (CARB) to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use and housing policies to plan for achievement of the emissions target for their region.

SACOG is the MPO responsible for developing the federally required Metropolitan Transportation Plan (MTP) and the SCS in coordination with the 22 cities, six counties, and

other partner agencies in the greater Sacramento region. The MTP is a long-range plan for transportation in the region built on the 2004 Blueprint framework. SACOG updated the MTP/SCS in February 2016.

SB 375 was adopted with the goal of reducing greenhouse gas emissions from cars and light trucks. SB 375 is intended to facilitate the development of communities that provide sensible and coordinated housing and transportation choices. The SCS is a plan to meet the region's greenhouse gas emissions reduction target, while taking into account regional housing needs, transportation demands, and protection of resource and farm lands based on the best forecast of likely land use patterns provided in coordination with SACOG's partner agencies.

Local

The following local/regional regulations pertaining to land use and planning would apply to the proposed project.

SACOG 2016 MTP/SCS

The 2016 MTP/SCS was adopted by the SACOG Board on February 18, 2016. The plan covers the period from 2012 to 2036 and is an update to the 2012 plan. This MTP/SCS provides the regional plan for transportation investments, integrated with projected land use, and funding constraints the region can reasonably expect to see through 2036. The plan takes an integrated approach to transportation and land use, and the resulting impacts to air quality, with a focus on implementation and maintenance of the existing transportation system. The 2016 MTP/SCS provides increased transportation options, while also reducing congestion, greenhouse gas emissions, and distances traveled between jobs and housing.

Placer County General Plan

The Gill property is designated by the Placer County General Plan as Rural Residential – 1 to 10-acre minimum. The Peery property, except for the small parcel within the City limits, is designated by Placer County as Agricultural/Timberland – 80 acre minimum.

Placer County Zoning Ordinance

The Gill property is zoned as a Farm-Building combining zone, 5-acre minimum. The two unincorporated Peery parcels in are zoned Farm-Building, 80-acre minimum. These zoning designations permit farm buildings at the indicated minimum parcel sizes. Special purpose districts identify specific areas within the vicinity of mineral extraction operations, airports, sewage treatment plants, and/or waste disposal facilities (Placer County Municipal Code 17.52).

Placer County Local Agency Formation Commission (LAFCO)

LAFCOs, among other responsibilities, review proposals and regulate changes related to changes to the boundary lines of existing local agencies, including cities. LAFCOs oversee these changes in the interest of discouraging urban sprawl, preserving open space and agricultural lands, and ensuring the efficient provision of government services. Because the proposed project would require the annexation of the proposed Specific Plan area into the City, Placer County LAFCO is responsible for evaluating the proposed project and approving the proposed annexation. Relevant policies that have been adopted by the Placer County LAFCO include (Placer County LAFCO n.d.):

Policy I-A Recognizing that the general purpose of government is to serve its citizens and that the purpose of LAFCO is to promote orderly and efficient forms of government, the consideration of service questions related to jurisdictional changes is paramount. Reflected in the following policies is the Commission's concern: (1) that through service information be made available, (2) that each affected agency be made aware of the impacts of a jurisdictional change, and (3) that as development occurs a complete range of necessary services is accessible.

1. The plan for service provision submitted as part of an application for the jurisdictional change shall include the following information: (1) an enumeration and description of the services to be extended to the affected territory; (2) the level and range of those services; (3) an indication of when those services can feasibly be extended to the affected territory; (4) an indication of any improvement or upgrading of structures, roads, sewer or water facilities, or other conditions the local agency would impose or require within the affected territory if the change of organization or reorganization is completed; and (5) information with respect to how those services would be financed.

In addition to the foregoing information, the following information will be required as part of each plan for service:

- a. A list of the existing services available to the affected area, and the agencies providing those services
- b. A list of services available through the affected agency or agencies
- c. A comparison of the existing and proposed service levels and the effects of the proposed change on service in adjacent areas
- d. A description of all special local taxes, assessments, fees, and outstanding bonds that will potentially affect the proposal area
- e. Identification of any resource shortages or facility inadequacies presently experienced or anticipated by the affected agency

2. All proposals involving jurisdictional change will include a plan for services. Those proposals initiated by resolution of the affected agency shall include the plan for service with the application. When proposals are initiated by petition, the Commission's staff shall notify the affected agency and request a plan for service. In cases where the proposed jurisdictional change involves a reorganization, the plan for service shall address all of the affected agencies.

Policy I-B The Commission finds that a community approach to service provision is beneficial in that it facilitates the eventual consolidation of local agencies, it clarifies and simplifies service delivery, it assures the most complete ranges of services available to a developing area, and it helps define and empower a community. The Commission shall encourage a community approach to service provision by encouraging the coterminous development of local agency boundaries within the area.

Service provision shall be viewed on a community basis. Annexation to a city shall generally be accompanied by simultaneous annexation to the special districts that serve that community. Likewise, when possible, annexation to a special district that serves a city shall include annexation to that adjacent city.

Policy II While the Commission is prohibited from imposing any conditions "which would directly regulate land use density or intensity, property development, or subdivision requirements," the Commission is required to consider land use and related data in their review. While rezoning is required, the Commission may not specify how a particular area should be zoned or developed.

The premature conversion of farmland and open space to other uses is discouraged by the Cortese-Knox-Hertzberg Act. In the pursuit of this goal, the Commission has authority to modify the proposal's boundaries or to deny an untimely proposal. Information regarding land use designations and existing and proposed land uses assists the Commission in its determinations as to the appropriateness of a proposal's timing and boundaries.

1. The commission encourages all agencies within the County to adopt and exercise development policies that promote orderly development and logical boundaries and protect productive agricultural lands and significant open space areas, including riparian areas.
2. Unless the subject area is substantially developed to its ultimate use, annexation to a city or special district will be linked to a proposal to develop

and not be speculative in nature. Development plans, including a timetable, will be required as part of the LAFCO application for annexation.

3. Generally annexation of farmlands shall not be permitted when significant areas of non-productive farmland are already available. Development of vacant land within a city or district should be developed prior to fringe areas.

Policy III-A 1. The Commission encourages the urbanization of certain lands over others and hereby establishes a priority list for urbanization:

- a. Vacant or underdeveloped land within the existing boundaries of a city
 - b. Vacant or underdeveloped land within the adopted sphere of influence of a city
 - c. Vacant or underdeveloped land outside of the adopted sphere of influence for a city
2. The commission will consider the following factors in determining local growth patterns in reviewing proposals for annexation to a city or expansion of a city's sphere of influence:
- a. Adjacency with existing and planned growth pattern of the city
 - b. Projected growth demand and relationship to remaining lands to be developed within the city and its existing sphere
 - c. Ability of the city to provide and fund needed services (utilities, transportation, public safety, recreation, libraries) to the levels defined by the city's general plan
 - d. Pending or anticipated development applications to the County for areas within a city's existing sphere
3. The Commission discourages urban level development in unincorporated areas adjacent to city boundaries.

Policy III-C 1. To allow for the evaluation of projected growth demand and its relationship to remaining lands to be developed within the city, proposals for annexations to a city or reorganizations including annexation to a city (except unincorporated islands and minor adjustments) shall be accompanied by the following:

- a. A market absorption study analyzing proposed uses in relation to similar uses within the city.
- b. Analysis of alternative project sites located elsewhere within the city or its existing sphere. This analysis shall be included as an alternative in the

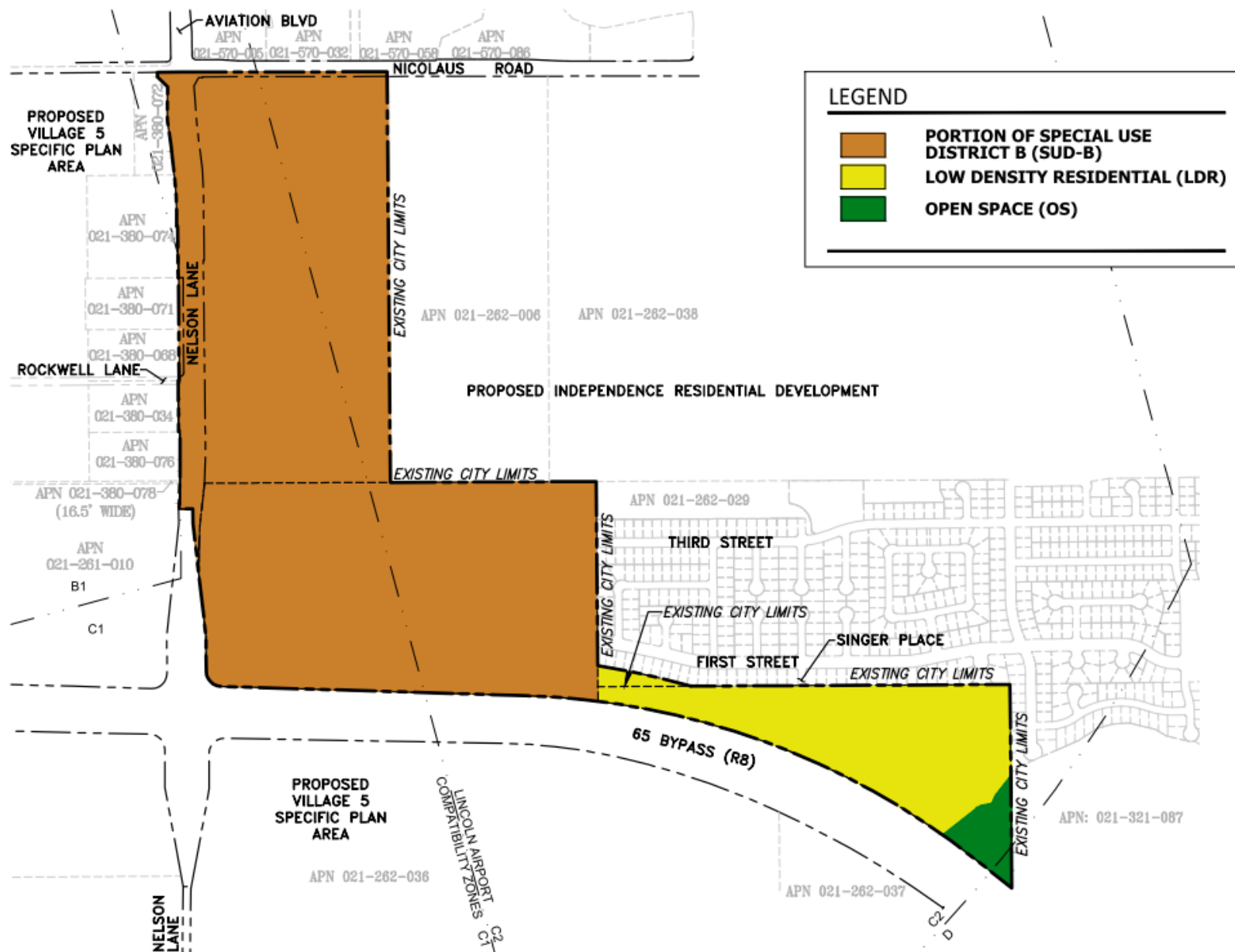
environmental document prepared for the proposed annexation or reorganization including annexation. If such alternative sites are determined not to be feasible as defined by CEQA, the environmental document shall include a discussion of these reasons and relevant data used to make determinations. LAFCO staff shall be afforded the opportunity to comment on the adequacy of the alternatives analysis prior to certification of the environmental document.

2. Unless special circumstances can be demonstrated, city annexations or reorganizations including city annexations shall be discouraged if there are feasible alternative sites for the annexation proposal already within the city.
3. All city annexations shall be pre-zoned. No subsequent change may be made to the general plan or zoning for the annexed territory that is not in conformance to the pre-zoning designations for a period of two years after completion of the annexation.

Placer County Airport Land Use Compatibility Plan

The Placer County Airport Land Use Compatibility Plan (ALUCP) for the Lincoln Regional Airport sets compatibility zone boundaries that represent a composite of four compatibility factors: noise, safety, air-space protection, and overflight concerns (PCTPA 2014).

The proposed SPA is located within compatibility zones C1 and C2 (see Figure 4.10-2). Compatibility zone C1 covers the extended approach/departure corridor, and is affected by moderate degrees of both noise and risk (PCTPA 2014). Cumulative noise levels exceed CNEL 55 dB in portions of compatibility zone C1 and noise from aircraft operations can affect noise-sensitive land uses residences, schools, libraries, and outdoor theaters (PCTPA 2014).

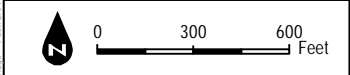
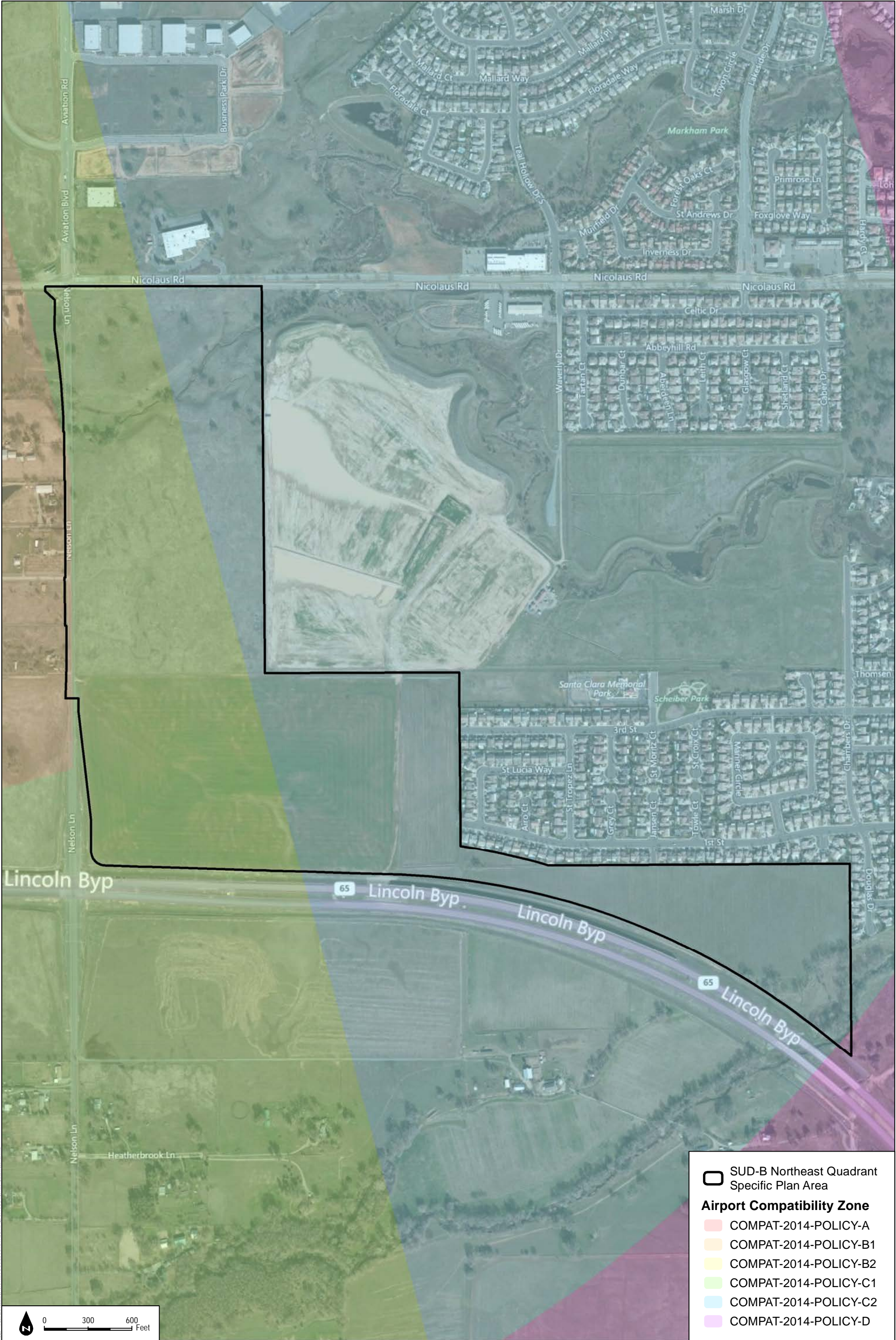


SOURCE: Frayji Design Group, Inc. (2017)

FIGURE 4.10-1
Current City of Lincoln General Plan Land Use

SUD-B Northeast Quadrant Specific Plan DEIR

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Compatibility zone C2 includes location along the pattern entry routes to the Lincoln Regional Airport and beneath wide patterns flown by large aircraft (PCTPA 2014). This zone lies outside the CNEL 55 dB noise contour. Safety is a concern within compatibility zone C2 only with regard to highly concentrated land uses and particularly risk-sensitive uses, such as schools and hospitals (PCTPA 2014).

Table 4.10-1 shows the permitted land use criteria for compatibility zones C1 and C2. Note that only the land uses proposed in the SPA are listed.

Table 4.10-1
Lincoln Regional Airport Land Use Compatibility Policies

	Compatibility Zone C1	Compatibility Zone C2
<i>Criteria</i>		
Maximum Sitewide Average Intensity (people/acre) ¹	150	300
Maximum Single-Acre Intensity (people/acre) ¹	450	1,200
Open Land Requirement	15%	10%
<i>Land Use</i>		
<i>General</i>		
Any use having more than 1 habitable floor	Conditionally Acceptable (limited to ≤3 habitable floors)	Normally Compatible
Any use having structures (including poles or antennas) or trees 35 to 150 feet in height	Conditionally Acceptable (Airspace review required for objects >70 feet)	Normally Compatible
Any use having the potential to cause an increase in the attraction of birds or other wildlife	Conditionally Acceptable ²	Conditionally Acceptable ²
Any use creating visual or electronic hazards to flight ³	Incompatible	Incompatible
<i>Outdoor Uses</i>		
Water: flood plains, wetlands, lakes, reservoirs, rivers, detention/retention ponds	Conditionally Acceptable ²	Conditionally Acceptable ²
Local Parks: neighborhood parks, playgrounds	Normally Compatible	Normally Compatible
<i>Residential Uses</i>		
Single-Family Residential: individual dwellings, townhouses, mobile homes, bed and breakfast inns	Conditionally Acceptable (1 dwelling unit/2 acres, 4 dwelling units/single acre)	Normally Compatible
<i>Commercial, Office, and Service Uses</i>		
Major Retail (capacity >300 people per building): Regional shopping centers, 'big box' retail, supermarket	Conditionally Acceptable (FAR 0.38)	Conditionally Acceptable (FAR 0.76)
Local Retail (≤300 people per building): community/neighborhood shopping centers, grocery stores	Conditionally Acceptable (FAR 0.59)	Normally Compatible
Eating/Drinking Establishments: restaurants, bars, fast-food dining	Conditionally Acceptable (FAR 0.21)	Conditionally Acceptable (FAR 0.41)
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, building materials, hardware, lumber yards, nurseries	Conditionally Acceptable (FAR 0.86)	Conditionally Acceptable (FAR 1.72)

Table 4.10-1
Lincoln Regional Airport Land Use Compatibility Policies

	Compatibility Zone C1	Compatibility Zone C2
Offices: professional services, doctors, finance, banks, civic; radio, television and recording studios, office space associated with other listed uses	Conditionally Acceptable (FAR 0.74)	Conditionally Acceptable (FAR 1.48)
Personal and Miscellaneous Services: barbers, car washes, print shops	Conditionally Acceptable (FAR 0.69)	Conditionally Acceptable (FAR 1.38)
Fueling facilities: gas stations, trucking and other transportation fueling facilities	Conditionally Acceptable	Normally Compatible
<i>Transportation</i>		
Transportation Routes: road and rail transit lines, rights-of-way, bus stops	Normally Compatible	Normally Compatible
Auto Parking: surface lots, structures	Normally Compatible	Normally Compatible

Notes:

- ¹ All non-residential development shall satisfy both sitewide and single-acre intensity limits.
- ² Avoid uses that attract birds or provide mitigation consistent with FAA rules and regulations
- ³ Specific characteristics to be avoided include: sources of glare (such as from mirrored or other highly reflective structures or building features) or bright lights (including search lights and laser light displays); distracting lights that could be mistaken for airport lights; sources of dust, steam, or smoke that may impair pilots' vision; sources of steam or other emissions that cause thermal plumes or other forms of unstable air; and sources of electrical interference with aircraft communications or navigation.

Source: Placer County Airport Land Use Compatibility Plan, 2014

City of Lincoln General Plan 2050

The City of Lincoln's General Plan 2050 (General Plan) serves as the primary document for guiding and governing future development and growth within the City, and has established comprehensive planning goals and policies designed to achieve development and community objectives through 2050. The current version was adopted and most recently updated in 2008. The plan includes seven elements that are discussed as individual chapters within the document, including: Economic Development, Land Use and Community Design, Transportation and Circulation, Public Facilities and Services, Open Space and Conservation, Health and Safety, and Housing (City of Lincoln 2008a).

The City of Lincoln General Plan designates the two northerly project parcels as Special Use District B and the two southerly parcels are designated as Low Density Residential (see **Figure 4.10-1**).

The 198.4-acre project area is part of a larger planning area, Special Use District-B (SUD-B), containing 1,844 acres. The SUD designation is intended to provide for master planned, mixed commercial projects that meet local and regional commercial demand and that are consistent with the restrictions of the Placer County Airport Land Use Compatibility Plan for the Lincoln Regional Airport (City of Lincoln 2008a). According to the City's General Plan:

All urban development under this designation shall be approved pursuant to an adopted specific plan. During the development of each specific plan, the "SUD"

designation shall be replaced with exact land use designations reflective of the mixed use concept. These designations will be established with the adoption of each specific plan and implemented with form based zoning classifications consistent with the specific plan.

The Highway 65 Bypass bisects the northern portion of SUD-B. Construction of the 65/Nelson Lane interchange, a joint Caltrans and City project, has not yet begun, but is anticipated to be completed by 2025. The City's General Plan envisions commercial land uses at the four quadrants of this interchange.

The City's General Plan identifies the following land use and design issues that should be addressed in the Specific Plan for SUD-B:

- The Special Use District shall comply with the land use requirements of the Placer County Airport Land Use Compatibility Plan
- Commercial/industrial opportunities in over-flight zone
- Nelson Lane realignment and interchange with SR 65 Bypass
- Opportunity for restoration of the Auburn Ravine and expand the City's trail system
- Potential for clustering of residential units in order to maintain a density limitation of one dwelling unit per two acres

The City's General Plan included a criterion that a specific plan would be required for the entire SUD-B prior to any major development within SUD-B. In 2002, the City Council adopted Resolution No. 2002-97 expressing a preference for an alignment for the Highway 65 Bypass through the Scheiber family ranch property and stating a commitment to work with the property owners to annex the property severed by the Bypass alignment to reduce the financial burden associated with the annexation and entitlement process. Resolution No. 2002-97 was approved by City Council, which expressed the City's willingness to consider an application for a General Plan Amendment, Specific Plan, and Annexation for the northeast quadrant of SUD-B (APN: 021-262-001 and 021-262-034).

The general plan goals and policies that are applicable to the proposed project are listed in Table 4.10-2, General Plan Consistency.

City of Lincoln Zoning Ordinance

The City Zoning Ordinance contains site-specific zoning designations and associated development standards that serve to implement the goals and policies of the General Plan, most notably the Land Use and Community Design Element. The Zoning Ordinance directly

influences development by specifying the distances between buildings, the height of buildings, landscaping, parking, and other regulations that combine to create the desired urban environment. The City zoning standards are found in Title 18 of the City’s Municipal Code.

The small 1.0 acre parcel within the City limits is zoned Residential Development – 5 units/acre (the other three parcels do not have a City zoning designation prior to their annexation into the City).

Design Review

The purpose of the City’s design review process aims to address the interdependence of land values and aesthetics and provide a means by which the City can ensure preservation and enhancement of the City’s unique character. The design review process shall also assure that public funds spent on beautification of public facilities and structures are protected through reasonable controls over the character and design of private buildings and open spaces (City of Lincoln Municipal Code Section 18.64.030).

4.10.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to land use and planning are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to land use and planning would occur if the project would:

1. Physically divide an established community.
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
3. Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.10.4 Impacts Analysis

The analysis in this section complies with Section 15125(d) of the CEQA Guidelines, which requires EIRs to discuss potential conflicts with applicable local or regional plans as part of the environmental setting. In addition, Government Code Section 65454 states that no specific plan may be adopted or amended unless the proposed plan or amendment is consistent with the general plan. Therefore, the land use analysis discusses the compatibility of the proposed specific plan with the City’s General Plan and the Placer County Airport Land Use Compatibility Plan. Although SACOG has no land use authority over the proposed project, consistency with the 2016 MTP/SCS is discussed to provide information on the regional planning framework. As the project would require annexation of certain properties to the City of Lincoln, Placer County

LAFCO would rely upon this EIR in its role as a responsible agency. Applicable LAFCO policies are therefore considered.

The proposed Specific Plan would contain development standards and design guidelines that would serve as zoning for the proposed SPA. Therefore, an analysis of compatibility with the City's zoning code is not required for the proposed Specific Plan.

Consistency with the General Plan is ultimately determined by the decision making body of the lead agency (in this instance, the City Council). A finding of 'consistency' does not require that the project promote every individual policy, but that overall, the project will 'further the objectives and policies of the General Plan and not obstruct their attainment. For purposes of CEQA, the existence of a potential inconsistency between a general plan policy and a proposed project does not necessarily mean the project will have a significant impact on the environment. "[A]n inconsistency between a project and other land use controls does not in itself mandate a finding of significance. It is merely a factor to be considered in determining whether a particular project may cause a significant environmental effect" (*Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1207.

The analyses of consistency with other planning documents (e.g., regional air quality plans) are provided in the applicable technical sections throughout Chapter 4 of this Draft EIR.

Impact 4.10-1. The project would not physically divide an established community.

The proposed project would construct approximately 868,000 square feet of regional commercial space, 430 housing units, two neighborhood parks, and infrastructure within the SUD-B Northeast Quadrant. The proposed SPA is within the City's Sphere of Influence (SOI), located and is bordered by Nicolaus Road to the north, Nelson Lane to the west, and Highway 65 Bypass to the south. Lincoln's city limits are located to the immediate east and north of the proposed SPA (the easternmost portion of the SPA is within the existing City limits). An existing residential neighborhood and the site of the former Wastewater Treatment Plant is located immediately east of the proposed SPA (see Figure 2-2).

The proposed SPA currently contains undeveloped agricultural lands that have historically been used for dry-crop farming (i.e., hay) and grazing. The unincorporated area west of the SPA consists of rural residential and agricultural uses. There are similar rural and agricultural uses south of the SPA, across the SR 65 bypass. Industrial development and the airport lie north of the SPA. The proposed residential neighborhood would connect to the existing neighborhood to the east by extending First and Third Streets and the construction of a new frontage road along SR 65. Connections would also be made to Nelson Lane (see **Figure 2-5**). The northerly commercial development within the SPA would have access to Nicolaus Lane. The project would not divide

an established communities and would provide new access to Nelson Lane. Therefore, the potential to divide an established community is **less than significant**.

Impact 4.10-2. The project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

City of Lincoln General Plan

The consistency of the proposed project with the City of Lincoln General Plan 2050 is discussed in detail in Table 4.10-2, City of Lincoln General Plan Consistency.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
<i>Economic Development</i>		
ED-1.2	The City shall evaluate the fiscal impacts of new development and encourage a pattern of development that allows the City to provide and maintain a high level of urban services (including, but not limited to, water, sewer, transportation, fire stations, police stations, libraries, administrative, and parks), community facilities, and utility infrastructure, as well as attract targeted businesses and a stable labor force.	The proposed project is consistent with the General Plan land use designations (i.e., pattern of development). The City Council will consider the fiscal effects of the project.
ED-2.1	The City shall utilize the specific planning process for future growth areas, which will allow the City to plan for long-term infrastructure needs and create large tracts of land that are attractive to developers.	The proposed Specific Plan outlines proposed residential and commercial development and associated infrastructure within the SUD-B Northeast Quadrant.
ED-2.2	The City shall build flexibility into the zoning code in order to allow development to adequately respond to market conditions. At the same time, the City shall provide for a balance of land uses to attract residential, commercial, office, and industrial development.	The proposed Specific Plan would provide for residential, commercial, office, and industrial development.
ED-2.3	The City shall facilitate zoning and permit activities related to the expansion of existing businesses and the location of new businesses.	The proposed Specific Plan zoning would allow for new commercial land uses.
ED-3	To promote a diverse and balanced mix of employment and residential opportunities within the City.	The project would provide a mix of residential and commercial (employment) uses within the SPA.
ED-3.1	The City shall zone sufficient land for the expansion of existing businesses and attraction of new businesses.	The proposed project would include commercial land uses that could accommodate regional and local businesses.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
ED-3.3	The City shall provide for a range of housing choices for current and future residents through land use designations and zoning ordinances.	The SPA includes single family residential, as an extension of an existing single family neighborhood. A greater range of housing choices will be available in the larger SUD-B area and neighboring Village 5 and 7.
ED-4.3	The City shall encourage new businesses to locate in the following areas: downtown Lincoln; along the future Highway 65 Bypass; at the Lincoln Regional Airport; and in the business park surrounding the airport.	The proposed project's commercial component would be located adjacent to the Highway 65 Bypass and southeast of the Lincoln Regional Airport.
ED-4.6	The City will reserve appropriately zoned property along the State Highway 65 Bypass for future regional commercial land uses such as a regional shopping center, auto mall, or other vehicle sales and services.	The proposed project's commercial component, which would be located adjacent to the Highway 65 Bypass, would accommodate regional commercial land uses.
ED-6	To preserve, enhance, and expand the existing downtown so that it remains the psychological center of Lincoln.	The proposed Specific Plan area is outside of the City's downtown. The City has prepared an Urban Decay study which finds the commercial component of the project would not adversely affect existing commercial uses in the region, including the downtown.
ED-6.8	The City recognizes and supports downtown retail development as part of the City's downtown revitalization strategy. The City also recognizes the importance of healthy neighborhood retail centers throughout the City to meet the shopping needs of Lincoln's population. As Specific Plans with retail and/or commercial land uses are submitted for approval, the City will analyze the potential for local urban decay and regional blight.	See ED-6 discussion, above.
<i>Land Use and Community Design</i>		
LU-1	To grow in orderly pattern consistent with the economic, social, and environmental needs of Lincoln.	The implementation of a specific plan for the SUD-B NE Quadrant is consistent with the General Plan's land use goals, as analyzed in this section.
LU-1.1	The City shall promote efficient use of larger vacant parcels and vacant areas of the city by encouraging mixed use development.	While the proposed project is not mixed use, it would include both residential and commercial uses within the

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
		specific plan “village” concept. The proposed project would not preclude promotion of mixed use on other suitable parcels.
LU-1.4	The City shall require buffer areas between development parcels and significant watercourses, riparian vegetation, and wetlands.	The proposed project would place the two waterways into Open Space. For further discussion, see Chapters 4.4, Biological Resources, and 4.9, Hydrology and Water Quality.
LU-1.6	The City will promote the application of land use layouts and community designs that provide residents with transportation choices to walk, ride bicycles, ride transit services, as well as utilize a vehicle, including neighborhood electric vehicles.	The proposed project would provide pedestrian- and bicycle-friendly sidewalks and pathways that connect the Specific Plan area. Neighborhood electric vehicles (NEV) are anticipated within the proposed circulation component, which would connect to current NEV routes and to the planned NEV route along Nelson Lane.
LU-1.7	The City will promote the application of land use designs that provide a variety of places where residences can live, including apartments, condominiums, townhouses and single family attached and detached.	The residential component of the proposed project would provide detached single-family residences consistent with adjacent development.
LU-1.8	The City will promote the use of development patterns that are more compactly built and use space in an efficient but aesthetic manner to promote more walking, biking and use of public transit.	The proposed project is contiguous to existing development. Proposed residential density is density of 3.0 to 5.9 dwelling units per acre, consistent with the General Plan.
LU-1.11	To promote a high quality of life within the community, the City will, in conjunction with related policies in other general plan elements, promote the retention of natural open space areas, greenbelts and the provision of adequate parks as part of approving new land use designs.	The proposed project would incorporate natural open space, greenbelts, and parks. For further discussion, see Chapters 4.4, Biological Resources, 4.9, Hydrology and Water Quality, and Chapter 4.14, Recreation.
LU-1.12	Through the design review process, apply design standards that promote the use of high quality building materials, architectural and site designs, landscaping signage and amenities. The City will continue to develop and apply design standards that result in	The specific plan will include a General Development Plan with design standards consistent with the City's standards.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
	efficient site and building designs, pedestrian friendly projects that stimulate the use of alternative modes of transportation, and a functional relationship between adjacent developments.	
LU-2	To designate, protect, and provide land to ensure sufficient residential development to meet community needs and projected population growth.	The proposed project would include 430 single-family dwellings consistent with the general plan.
LU-2.1	The City shall prevent the intrusion of new incompatible activities and land uses (i.e., traffic, noise) and environmental hazards (i.e., flood, soil instability) into existing residential areas.	The effect of traffic, noise, and other off-site effects on adjacent land uses are considered in this EIR.
LU-2.8	The City shall promote flexibility and innovation in residential land use through the use of planned unit developments, developer agreements, specific plans, mixed use projects, and other innovative development and planning techniques.	The proposed specific plan (with developer agreement) would provide for residential development.
LU-2.9	The City shall encourage the use of alleys and side-loaded garages to de-emphasize the garage as the prominent visual feature of a residence.	The proposed design does not include alleys. The General Development Plan includes measures to set back and de-emphasize the garage.
LU-2.10	Protect existing and planned local air transportation facilities from encroachment by potentially incompatible land uses and require developers to file an aviation easement with the City if a proposed development or expansion of an existing use is located in an area subject to a compatibility zone within the Placer County Airport Land Use Compatibility Plan (ALUCP).	The proposed project site is within the C-2 and C-3 compatibility zone. As discussed in this EIR, the proposed uses and intensities are consistent with the ALUCP. This determination is subject to a finding by the Airport Land Use Commission.
LU-3	To designate adequate commercial land for and promote development of commercial uses compatible with surrounding land uses to meet the present and future needs of Lincoln residents, the regional community, and visitors and to maintain economic vitality.	The proposed project would include 971,000 square feet of commercial space to serve as a regional commercial center. The commercial component would be adjacent to Nelson Lane and would provide a transition zone between airport land uses and the proposed residential component of the Specific Plan.
LU-3.3	The City shall ensure that adequate parking and access are included in approved commercial development plans.	Parking for the commercial land uses shall be consistent with City standards (or as modified through the General Development Plan) to meet the need for on-site parking demand.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
LU-3.4	The City shall avoid “strip commercial” land uses in new development areas by encouraging grouping of commercial land uses in core areas.	The proposed project would include a regional commercial center. Although the commercial area is adjacent to Nelson Lane, it occupies the westerly portion of the specific plan area, and would be centrally located to new development in SUD-B and the former Wastewater Treatment Plant Site.
LU-3.5	The City shall mitigate conflicts between new commercial land uses and other land uses, especially residential, park, and recreational uses.	The proposed commercial land uses would be adjacent to open space (Markham Ravine), proposed residential development, and existing rural residential development. The issues, including traffic, noise, air quality, biological resources, and aesthetics, have been considered in this EIR.
LU-3.6	The City shall require that commercial land uses be buffered from incompatible land uses and protected from encroachment by incompatible uses through the use of techniques including, but not limited to, landscaping, soundwalls, berms, fencing, open space set-backs, greenbelts, and building orientation.	The proposed project includes setbacks from open space areas, soundwalls where needed between commercial and residential uses. Major roadways (Nelson Lane, SR 65 Bypass), open space, landscaping, and building orientation are used to provide separation from rural residential uses.
LU-3.7	The City shall promote flexibility and innovation in commercial land use through the use of planned unit developments, developer agreements, specific plans and other innovative development and planning techniques.	The proposed project includes a specific plan and development agreement.
LU-5.3	The City shall ensure that agricultural land uses are not prematurely terminated by protecting the continued operation of agricultural land uses.	Portions of the project area, both within and without the City Limits, have been actively farmed. Project development would be phased, and operations may continue until such time as those areas are developed.
LU-5.4	The City shall require that agricultural land uses designated for long-term protection (i.e., in a Williamson Act contract or under a conservation	The areas within the project area are designated for urban development. No current

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
	easement) shall be buffered from urban land uses through the use of techniques including, but not limited to, greenbelts, open space setbacks, soundwalls, fencing and berming.	Williamson Act contracts are in effect within the project area.
LU-6	To ensure that the legal requirements for general plan consistency are fulfilled.	Consistency with applicable land use plans, including the general plan, is discussed in this EIR. A specific plan must also describe how it would implement the general plan.
LU-9	To ensure high quality appearance and harmony between existing and new users, while avoiding repetitive style, height, and mass.	The proposed Specific Plan would include a General Development Plan, which would delineate the governing Design Guidelines for individual projects to be constructed within the Specific Plan area. These Design Guidelines would be required to comply with the City's General Plan and would be subject to design review by the City. See also the discussion of visual compatibility in Chapter 4.1, Aesthetics.
LU-9.1	Through urban design programs, including principles and guidelines, the City shall reinforce the city's unique character, style, and identity.	See LU-9.
LU-9.3	The City shall promote development that creates and enhances positive spatial attributes of major public streets, open spaces, cityscape and mountain sight lines and important "gateways" into the city.	See LU-9.
LU-9.4	The City shall develop linkages between different parts of the city, and foster creation of unique elements that provide identity to the city and the neighborhoods and result in the creation of diverse and distinctive places.	See LU-9.
LU-9.5	The City shall designate gateway points at major entrances to the city, and prioritize their design and implementation through the City's Capital Improvements Program. The City shall use street trees, welcome signs, decorative lighting, archways, and other streetscape design techniques along streets to announce the gateway, and establish development regulations to provide visual emphasis to the gateway.	No City "gateways" have been designated within the project area. The specific plan designated community gateways into the specific plan area from Nelson Lane.
LU-9.6	The City shall maintain a distinct urban edge, while creating a gradual transition between urban uses and open space.	The project area has a southern edge defined by the SR 65 Bypass, with rural residential and agricultural

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
		uses to the south. To the west, Nelson Lane forms an edge with rural residential on the opposite side. Streetscape corridors also define the western and southern edge of the plan area.
LU-9.7	<p>The City shall encourage development that is visually and functionally compatible with the surrounding neighborhoods by:</p> <ul style="list-style-type: none"> • Maintaining a height and density of development that is compatible with adjacent developed neighborhoods; and • Accenting entrances to new neighborhoods with varied landscaping, hardscaping, and signage treatment. 	See LU-9.
LU-9.8	The City shall emphasize Lincoln's natural features as the visual framework for new development and redevelopment.	See LU-9.
LU-11	To encourage site design that is sensitive to residents' and businesses' needs for privacy, security, and buffering from other uses and activities.	The proposed project uses a combination of street layout, landscaping, and sound walls to separate single family homes from commercial land uses.
LU-11.1	The City shall design open space areas, bicycle and pedestrian systems, and housing projects so that there is as much informal surveillance by people as possible to deter crime.	The open space areas would be flanked by bike/pedestrian trails. Auburn Ravine would be adjacent to a park and residential development facing the open space areas. Markham Ravine would have a residential roadway on one side and commercial development on the other.
LU-11.2	The City shall ensure that lighting and landscaping plans respond to public safety concerns.	The proposed Specific Plan would include a General Development Plan, which would delineate the governing Design Guidelines for individual projects to be constructed within the Specific Plan area, including the lighting and landscaping standards. These Design Guidelines would be required to comply with the City's General Plan and design guidelines.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
LU-11.3	The City shall require that all outdoor light fixtures, including street lighting, externally illuminated signs, advertising displays, and billboards, use low-energy, shielded light fixtures that direct light downward (i.e., lighting shall not emit higher than a horizontal level). Up-lighting of architectural features or landscaping can be allowed in compliance with the California Title 24 Energy Standards (as amended) and based on City design review. Additionally, the City shall continue to improve and maintain proper lighting in park facilities and fields without undue nuisance light and glare spillage on adjoining residential areas. Where public safety would not be compromised, the City shall encourage the use of low intensity lighting for all outdoor light fixtures.	See LU-11.2. Also see the lighting discussion in Chapter 4.1, Aesthetics.
LU-12	To enhance the urban form while maintaining visual and physical access to distinctive environmental features.	See LU-9.
LU-12.1	The City shall maintain visual access to hillside views by regulating building orientation, height, and bulk.	For a detailed discussion of viewsheds associated with the proposed Specific Plan area, see Chapter 4.1, Aesthetics.
LU-12.2	The City shall respect the natural setting of the hillside area by encouraging hillside development to incorporate natural landscape features.	The proposed Specific Plan area is west of Lincoln, whereas the hillside area is located in the easternmost portion of the City. This policy is not applicable to the proposed project.
LU-12.3	To enhance views of hillsides, open space, and other distinctive views within the community, proposed project designs will be expected to maintain some viewshed by regulating building orientation, height, and mass.	See LU-12.1.
LU-12.4	Where feasible, the City should preserve the existing natural edges along the city's creek system and wetland areas and restore impacted creeks by planting natural vegetation.	The proposed Specific Plan would establish setbacks from the portions of Markham Ravine and Auburn Ravine within the Specific Plan Area in order to preserve the existing drainage sheds and riparian vegetation. See Chapter 4.4, Biological Resources.
LU-12.5	Where feasible (and not a significant impact to the natural resources), the City shall encourage the provision of access to creeks, wetlands, and other open space areas to pedestrian and bicycle access.	The specific plan would include open space at Markham Ravine and Auburn Ravine. These areas would be served by a combination of on and off-street bicycle and pedestrian access.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
LU-12.6	Wherever practical, the City will encourage new development to be oriented towards adjacent creeks and wetland areas and provide visual access to these areas.	Markham Ravine and Auburn Ravine traverse the proposed Specific Plan area. Portions of the proposed commercial, residential, and recreational components of the project would be located adjacent to the ravines, permitting visual access to these areas.
LU-12.7	When possible, the City shall locate open space and parks adjacent to creeks.	The specific plan would include open space at Markham Ravine and Auburn Ravine. Auburn Ravine would have a park adjacent to the open space area.
LU-12.8	The City shall encourage site planning that incorporates creek and wetland edges into the overall development.	See LU-12.6 and LU-12.7.
LU-13	To preserve Lincoln's character and scale, including its traditional urban design form and historic character.	See LU-9.
LU-13.2	The City shall encourage and promote the adaptive reuse of Lincoln's historic resources, in order to preserve the historic resources that are a part of Lincoln's heritage.	The proposed project area does include historic structures.
LU-13.4	The City shall ensure that new development respects Lincoln's heritage by requiring that new development respond to its context and be compatible with the traditions and character of Lincoln, and shall promote orderly development which is compatible with its surrounding scale and which protects the privacy and access to light and air of surrounding properties.	See LU-9 regarding urban design. The project's residential component would be similar to adjacent residential uses in density.
LU-14	To preserve the character and scale of Lincoln's established residential neighborhoods.	To maintain compatibility with the existing residential neighborhood east of the proposed project, the proposed residential component would consist of single-family residences.
LU-14.2	The City shall encourage development of diverse and distinctive neighborhoods that build on the patterns of the natural landscape and are responsive in their location and content.	The project would continue existing street patterns east of the project and incorporate the open space areas of Markham Ravine and Auburn Ravine.
LU-14.3	The City shall encourage buildings to foster a sense of place by providing transitions between the street and building, front setback variation for residential development, and building articulation and massing, as part of development standards or	See LU-9.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
	<p>any design guidelines that may be prepared.</p> <p>Elements such as porches, bay windows, and landscaping should be designed to create a transition between public and private spaces. When porches are incorporated into the design, they should be designed as a usable outdoor space.</p>	
LU-14.4	<p>The City shall design local streets to not only accommodate traffic, but also to serve as comfortable pedestrian environments. These should include, but not be limited to:</p> <ul style="list-style-type: none"> • Street tree planting between the street and sidewalk to provide a buffer between the pedestrian and the automobile • Minimum curb cuts along streets • Sidewalks on both sides of streets, with the sidewalk separate from the curbface with a landscape strip, where feasible • Traffic calming devices such as roundabouts, bulb-outs at intersection, traffic tables, etc. • Encourage the establishment of a tree canopy over residential streets and neighborhoods. A street tree program shall be included with all specific plans 	<p>Proposed commercial street cross sections include street trees between the street and sidewalk. Proposed residential street sections include sidewalks with street trees at back of walk.</p> <p>The street design was reviewed and revised to distribute automobile traffic and minimize speeds in residential areas.</p>
LU-14.5	The City shall require that entrances to new neighborhoods be accented with distinctive landscaping, pavement, and signage treatments.	See LU-9.
LU-15	To organize new development areas to create vibrant, mixed-use villages characterized by a mix of land uses, pedestrian and transit accessibility, and neighborhood identity.	The proposed Specific Plan area is not within a designated Village. The proposed Specific Plan is within a Special Use District, discussed below under Goal LU-16.
LU-16	To organize new Special Use Districts to create dynamic community and regional serving commercial areas and locations for residential uses that are well integrated with future highway development and protection of the Lincoln Municipal Airport.	<p>The 198.4-acre project area is part of a larger, 1,844-acre planning area, Special Use District-B (SUD-B), within the City's Sphere of Influence. The proposed SUD-B Northeast Quadrant Specific Plan is located between the Lincoln Regional Airport and the Highway 65 Bypass along the western edge of the City.</p> <p>The proposed Specific Plan is consistent with Airport Land Use</p>

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
		Compatibility Plan standards and considers the existing SR 65 Bypass and a future interchange at Nelson Lane.
LU-16.1	The City shall require the completion and approval of a specific plan to guide future development within the designated SUD.	The proposed specific plan includes sections addressing the required contents.
<i>Transportation and Circulation</i>		
T-2.2	The City shall ensure that streets and highways will be available to serve new development by requiring detailed traffic studies and necessary improvements as a part of all major development proposals.	The City prepared a traffic impact analysis consistent with this policy (see Chapter 4.15, Traffic and Circulation).
T-2.3	Strive to maintain a LOS C at all signalized intersections in the City during the p.m. peak hours. Exceptions to this standard may be considered for intersections where the city determines that the required road improvements are not acceptable (i.e., due to factors such as the cost of improvements exceeding benefits achieved, results are contrary to achieving a pedestrian design, or other factors) or that based upon overriding considerations regarding project benefits, an alternative LOS may be accepted. For purposes of this policy, City intersections along McBean Park Drive between East Avenue and G Street, and G Street between First Street and Seventh Street, are excluded from the LOS C standard, and will operate at a lower LOS.	The direct and cumulative impacts of the proposed project would reduce (or further reduce) the level of service at some signalized intersections to below LOS C. Implementation of proposed mitigation measures would restore acceptable LOS at affected intersections.
T-2.4	The City shall coordinate with Caltrans in order to strive to maintain a minimum LOS "D" for SR 65 and SR 193.	The project would not cause a freeway facility to fall below LOS D. Under cumulative conditions, the proposed project would further degrade Caltrans freeway locations that are already projected to operate at LOS F.
T-2.9	The City shall support construction of the SR 65 Bypass with interchanges provided at Ferrari Ranch Road, the realigned Nelson Lane, Nicolaus Road and Wise Road. The City will continue to place a very high priority on the construction of the Highway 65 Bypass and to aggressively pursue its funding and construction with Caltrans, SACOG, Placer County Transportation and Planning Agency, appropriate Federal agencies and private sources.	This proposed specific plan considers the future construction of the SR 65 Bypass at Nelson Lane.
T-2.14	The City shall require developers to construct at least the first two lanes of any road (including curbs, gutters and sidewalks) within their projects.	The project would fully construct all internal roadways.

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Goal/Policy	Text	Consistency Determination
T-2.15	The City shall require dedication by affected property owners of rights-of-way for all streets and interchanges as part of the project approval process.	The project must comply with this condition, through the Development Agreement and filing of tentative subdivision maps.
T-2.16	The City shall minimize the number, properly space, and interconnect traffic signals to maximize progression and minimize the acceleration/deceleration that produces significantly higher vehicle emissions and noise levels.	The traffic analysis has considered the need to maximize progression and to distribute traffic volumes.
T-2.17	The City shall require that existing and future arterial improvements be designed to minimize conflicting traffic movements such as turning, curb parking, and frequent stops.	The project is bordered by two arterials, Nelson Lane and Nicolaus Road. Project access considers these factors in the roadway and driveway locations.
T-2.19	The City shall implement street widening and other circulation improvement which are related to new development in conjunction with the City's capital improvements program.	The proposed project would construct improvements to Nelson Lane and Nicolaus Road within the specific plan area.
T-3	Provide appropriate parking for existing and future development in the City.	The General Development Plan will identify parking standards consistent with City requirements.
T-3.2	The City shall require the provision of adequate off-street parking in conjunction with new development. Parking shall be located convenient to new development and shall be easily accessible from the street system.	See T-3.
T-4.3	The City shall promote the use of public transit through development conditions requiring park-and-ride lots, bus turnouts and passenger shelters along major streets adjacent to appropriate land uses.	The project area is not currently served by transit. As a condition of approval, the project shall provide for future facilities for transit (bus turnouts, etc.) on project roadways.
T-4.7	Through the use of Golf Transportation Plans, the City shall support the use of electric golf carts within the City, and providing the necessary infrastructure to support them, when feasible.	The specific plan includes routes for neighborhood electric vehicles on the arterial streets.
T-4.8	Through the implementation of the Neighborhood Electric Vehicle Plan, the City shall support the use of Neighborhood Electrical Vehicles (NEV) and similar vehicles by providing where possible for street classifications that provide for their use and ensure connectivity throughout the City.	The specific plan includes routes for neighborhood electric vehicles on the arterial streets.
T-5	To provide an interconnected system of bikeways that	The project includes bikeways

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Goal/Policy	Text	Consistency Determination
	would provide users with direct linkages at a city and regional level.	that would connect with planned bike lanes on Nelson Nicolaus Road, and with planned bike lanes on First and Third Streets.
T-5.1	The City shall require bike lanes in the design and construction of major new street and highway improvements, and to establish bike lanes on those city streets wide enough to accommodate bicycles safely.	The Specific Plan includes a proposed bicycle circulation system. See T-5.
T-5.6	The City shall promote pedestrian convenience and safety through development conditions requiring sidewalks, walking paths, or hiking trails that connect residential areas with commercial, shopping, and employment centers. Where feasible, trails will be looped and interconnected.	The Specific Plan includes a pedestrian circulation element.
T-5.7	The City shall encourage the development of trails and pathways along the edges of creeks and wetland areas. Where feasible, trails will be looped and interconnected.	The proposed project includes pedestrian trails at the two ravines (open space areas).
T-5.9	The City shall encourage specific plans and development plans to include design of pedestrian access that enables residents to walk from their homes to places of work, recreation, and shopping.	The Specific Plan includes a pedestrian circulation element.
T-5.10	The City shall review site plans to determine if residential, commercial and office land uses are designed for pedestrian access. Future developments shall contain an internal system of trails that link schools, shopping centers, and other public facilities with residences in order to provide pedestrians with sufficient internal access.	The Specific Plan includes a pedestrian circulation element. The General Development Plan must also address pedestrian access.
T-6	To continue to support the operation and promotion of the Lincoln Regional Airport.	The project is consistent with the ALUCP compatibility zones, as discussed earlier in this section.
<i>Public Facilities and Services</i>		
PFS-1	To ensure that adequate public services and facilities are provided to meet the needs of residents of the city.	The proposed project's potential impacts on the provision of police protection, fire protection, school, and library services are discussed in Chapter 4.13, Public Services. Chapter 4.17, Utilities and Service Systems, discusses the potential impacts of the proposed project on the provision of water, wastewater,

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Goal/Policy	Text	Consistency Determination
		solid waste, and energy.
PFS-1.1	The City shall ensure the provision of adequate public services and facilities to the existing areas of the city and to ensure that new development is served by a full range of public services.	See PFS-1.
PFS-1.2	The City shall require that prior to any annexations to the City a detailed public facilities and financing plan be completed that considers both capital facilities and the fiscal impacts to the City's ongoing operation and maintenance costs.	The applicant has prepared the relevant plans, which shall be reviewed and approved prior to consideration of the project.
PFS-1.3	During the development review process, the City shall not approve new development unless the following conditions are met: <ul style="list-style-type: none"> • The applicant can demonstrate that all necessary infrastructure will be installed or adequately financed; • Infrastructure improvements are consistent with City infrastructure plans; and • Infrastructure improvements incorporate a range of feasible measures that can be implemented to reduce public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required improvement. 	See PFS-1.
PFS-1.4	The City shall comply with the requirements of the Clean Water Act and other regulations with the intent of minimizing the discharge of pollutants to surface waters.	For a detailed discussion of water quality regulations applicable to the proposed project and the proposed project's compliance with these regulations, see Chapters 4.9, Hydrology and Water Quality, 4.4, Biological Resources, and 4.17 Utilities and Service Systems
PFS-2	Ensure provision of a water system with adequate supply transmission, distribution and storage facilities to meet the needs of existing and future development.	For a discussion of water infrastructure that would serve the proposed project, see Chapter 4.17, Utilities and Service Systems.
PFS-2.3	The City shall require the availability of an adequate water supply to be demonstrated before approving new development.	A Water Supply Assessment was prepared for the project. The Assessment finds that there is an adequate water supply for the proposed project.
PFS-2.5	The City shall not allow development within newly annexed areas until a potable water supply is obtained through Placer County Water Agency (PCWA) or	The project area is served by PCWA and NID. The Water Supply Assessment finds that

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Goal/Policy	Text	Consistency Determination
	Nevada Irrigation District (NID) or, where appropriate, other water districts. For purposes of this policy, potable water will be considered obtained when a written confirmation of supply of surface water is received from the appropriate water agency and a funding mechanism acceptable to the City is in place to pay for any improvements necessary for the delivery of treated water. Applications for new development can be processed prior to obtaining appropriate will-serve documentation, but the project will not be approved prior to receiving this documentation.	there is adequate water to supply the proposed project.
PFS-2.6	The City shall coordinate development activity with the PCWA and NID to ensure adequate provision of treated water supplied by either supplier.	The project area is served by PCWA and NID. The Water Supply Assessment finds that there is adequate water to supply the proposed project.
PFS-2.9	The City shall condition new development on availability of storage that meets the following parameters: <ul style="list-style-type: none"> • Equalizing Storage (for meeting peak flows) – 25% of maximum day demand • Fire Reserve – Provide fire reserve as required by the Insurance Services Office (ISO) or as required by the City Fire Chief and City Engineer. • Emergency Reserve – 33% of the total of Equalizing Storage and Fire Reserve 	The applicant has prepared a water master plan to demonstrate compliance with this policy, subject to City review and approval.
PFS-2.14	The City shall require new development to be responsible for construction of water transmission and distribution lines less than 18 inches in diameter. Provision will be made allowing reimbursement from Third Parties should such lines result in an “over-sizing” for a particular development.	All water delivery infrastructure improvements associated with the proposed project would involve the construction of water lines 18 inches in diameter or less. For a discussion of water infrastructure that would serve the proposed project, see Chapter 4.17, Utilities and Service Systems.
PFS-2.17	The City shall require new development to use the best available technologies (BAT) for water conservation, including, but not limited to water-conserving water closets, showerheads, faucets, and water conserving irrigation systems.	BAT are included as part of the SUD-B NEQ Specific Plan design strategies and landscaping.
PFS-2.18	The City shall require meters for all new water connections.	The project would comply with City utility specifications.

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Goal/Policy	Text	Consistency Determination
PFS-3	Ensure provision of adequate sanitary sewers and wastewater treatment capacity to accommodate existing and future development in order to protect public health and safety.	The proposed project would have adequate wastewater treatment capacity and sewer system capacity. For a discussion of wastewater infrastructure that would serve the proposed project, see Chapter 4.17, Utilities and Service Systems.
PFS-3.10	The City shall require new development to be responsible for construction of all sanitary sewer lines serving such development. Provision will be made allowing reimbursement from Third Parties, or credits against City wastewater fees (as approved by the Director of Public Works) should such lines result in an “over-sizing” for a particular development.	This is a financial issue that does not result in a physical change in the environment. For a discussion of sanitary sewer infrastructure, see Chapter 4.17, Utilities and Service Systems.
PFS-4	To ensure provision and sizing of adequate storm drainage facilities to accommodate existing and planned development.	For a discussion of drainage, see Chapter 4.9, Water Quality and Hydrology, and Chapter 4.17, Utilities and Service Systems.
PFS-4.1	The City shall provide storm drainage facilities with sufficient capacity to protect the public and private property from storm water damage. The facilities will also be implemented in a manner that reduces all public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required drainage improvements.	For a discussion of storm drainage infrastructure that would serve the proposed project, see Chapter 4.17, Utilities and Service Systems.
PFS-4.2	The City shall encourage project designs that minimize drainage concentrations and impervious coverage and avoid floodplain areas and, where feasible, be designed to provide a natural water course appearance.	See Chapter 4.9, Water Quality and Hydrology.
PFS-4.4	The City shall design stormwater detention basins to ensure public safety, to be visually unobtrusive and to provide temporary or permanent wildlife habitat values and where feasible, recreational uses.	The proposed project includes several water quality detention basins. These are located near Markham Ravine and adjacent to the SR 65 Bypass.
PFS-4.6	<p>The City will require new development to provide storm-water detention sufficient to limit outflow per Figure 7-1 of the City’s Stormwater Management Manual (February 1994), or as revised.</p> <p>Master Drainage Plans shall be designed to require new development to provide, or contribute towards, stormwater detention to reduce post-development peak flow from a 100 year event to pre-development flow rate less 10% of the difference between the</p>	A Master Drainage Plan has been prepared for the proposed project. The Plan demonstrates compliance with these standards.

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Goal/Policy	Text	Consistency Determination
	estimated pre-development and the post-development unmitigated peak flow rates. The Master Drainage Plan shall identify appropriate locations to achieve such post- development flows. This criterion is principally designed to address the 100-year event with appropriate consideration given for the feasibility of mitigating 2-year and 10-year events.	
PFS-4.7	The City shall require new development to provide stormwater-retention sufficient for the incremental runoff from an eight-day 100 year storm.	See PFS-4.6.
PFS-4.8	The City shall require appropriate runoff control measures as part of future development proposals to minimize discharge of urban pollutants (such as oil and grease) into area drainages.	See PFS-4.6.
PFS-4.9	The City will discourage development or major fill or structural improvements (except for flood control purposes) within the 100-year floodplain as regulated by FEMA. Requests for fill and improvements within the floodplain may be approved by the City based upon a detailed hydraulic volumetric analysis prepared to evaluate impacts and provide for any mitigation measures to be provided as a part of the development to the satisfaction of the City Engineer/Public Works Director. Recreational activities that do not conflict with habitat uses may be permitted within the floodplain.	For a discussion of the 100-year floodplain, see Chapter 4.9, Hydrology and Water Quality. The plan would classify the floodplain as Open Space.
PFS-4.10	The City shall require adequate provision of erosion control measures as part of new development to minimize sedimentation of streams and drainage channels.	For a discussion of erosion and sedimentation, see Chapter 4.9, Water Quality and Hydrology and Chapter 4.6, Geology and Soils. The project would utilize erosion control measures during construction and operation.
PFS-4.11	The City shall require drainage designs and practices to be in accordance with the Stormwater Management manual of the Placer County Flood Control District unless alternative methods are approved by the City Engineer.	The project would comply with the Stormwater Management manual of the Placer County Flood Control District. See Chapter 4.6, Geology and Soils, for more information.
PFS-4.12	The City shall require that the cost to develop new or modify existing Drainage Management Plans be allocated to applicants proposing development within the City's Sphere of Influence.	This is a financial issue that does not result in a physical change in the environment. See Chapter 4.9, Hydrology and Water Quality, for a discussion on drainage.

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Goal/Policy	Text	Consistency Determination
PFS-4.13	The City shall require City maintenance of detention basins with financing by a separate drainage or special assessment district. When private facilities are used for detention, maintenance will be privately financed.	This is a financial issue that does not result in a physical change in the environment.
PFS-4.14	New drainage facilities near the Lincoln Airport influence area will be designed and maintained to avoid attraction and concentration of birds above existing conditions at the project site.	The proposed water quality detention basins would be located within Compatibility Zones C1 and C2, which allow such features that would not create an increased attraction for wildlife and that is inconsistent with FAA rules and regulations. This requirement has been incorporated into Mitigation Measure LU-1.
PFS-5.8	There will be an adequate buffer for the Western Regional Landfill in order to prevent the encroachment of incompatible land uses, which may compromise its long-term operations.	The landfill is located three miles away from the SPA. The proposed project would not encroach upon or compromise operations.
PFS-6.2	The City shall require undergrounding of utility lines in new development, except where it is not feasible due to the electrical transmission load or other operational issues as confirmed by the utility provider.	Utility lines in the SPA will be underground.
PFS-8	To provide adequate fire and police protection facilities and services to ensure the safety of residents and the protection of property in the city.	Provision of fire and police protection services is discussed in Chapter 4.13, Public Services.
PFS-8.6	The City shall require all new developments to provide adequate emergency access features, including secondary access points.	Emergency access is discussed in Chapter 4.15, Traffic and Circulation.
PFS-8.7	The City shall require sprinklers in all new commercial, industrial, and multifamily structures, as well as single family residential structures that are outside of the City's targeted response times.	The proposed Specific Plan would include a General Development Plan, which would delineate the governing Design Guidelines for individual projects to be constructed within the Specific Plan area. These Design Guidelines would be required to comply with the City's General Plan and would be subject to design review by the City.
PFS-8.9	The City shall continue to promote the use of site planning and building design as a means to decrease	The proposed Specific Plan would include a General

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Goal/Policy	Text	Consistency Determination
	crime.	Development Plan, which would delineate the governing Design Guidelines for individual projects to be constructed within the Specific Plan area. These Design Guidelines would be required to comply with the City's General Plan and would be subject to design review by the City.
PFS-9.1	The City shall ensure that in areas of new development, school facilities meeting adopted school district standards will be available.	See Chapter 4.13, Public Services, regarding the adequacy of school facilities to serve the SPA.
PFS-9.9	To the extent allowed by State law, the City will require new projects to mitigate impacts on school facilities, which could occur through a combination of new school site dedications and the use of developer fees. The City will also work with school districts, developers, and the public to evaluate alternatives to funding/providing adequate school facilities.	See PFS-9.1.
<i>Open Space and Conservation</i>		
OSC-1	To designate, protect, and encourage natural resources, open space, and recreation lands in the city, protect and enhance a significant system of interconnected natural habitat areas, and provide opportunities for recreation activities to meet citizen needs.	The proposed Specific Plan would include 22.6 acres of open space, the majority of which would encompass the Markham Ravine and Auburn Ravine watersheds. Chapter 4.14 further discusses Open Space and Park Land associated with the proposed project.
OSC-1.1	The City shall strive to protect natural resource areas, fish and wildlife habitat areas, scenic areas, open space areas and parks from encroachment or destruction by incompatible development.	See OSC-1.
OSC-1.3	In new development areas, the City shall encourage the use of open space or recreational buffers between incompatible land uses.	The draft Specific Plan provides for a landscape corridor of 20 feet in width between the proposed residences and the proposed commercial development.
OSC-1.4	The city will apply open space designations to all lands within the 100 year floodway as shown on the FIRM panel or as determined by a project drainage plan and approved by the City Engineer/Director of Public Works; The City will also apply open space designations to all 100-year floodplain fringe areas,	See PFS-4.9.

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Goal/Policy	Text	Consistency Determination
	and/or remaining floodplain fringe areas as determined by a project drainage plan identifying floodplain fringe encroachment areas, and quantifying their impact along with other improvements to show a zero (0) net impact to the upstream, downstream and adjacent properties. Open space designations will apply to all land located within a minimum of 50 feet from the center channel of all perennial and intermittent streams and creeks providing natural drainage, and to areas consisting of riparian habitat. In designating these areas as open space, the city is preserving natural resources and protecting these areas from development.	
OSC-1.5	The City will protect mineral resources such as groundwater, clay deposits, as well as groundwater recharge areas from urban development.	There are no identified mineral resources within the SPA. See Chapter 4.9, Hydrology and Water Quality, regarding impacts on groundwater recharge.
OSC-1.6	The City shall require new development to implement measures that minimize soil erosion from wind and water related to construction. Measures may include, but not be limited to the following: <ul style="list-style-type: none"> • Grading requirements that limit grading to the amount necessary to provide stable areas for structural foundations, street rights-of-way, parking facilities, or other intended uses; and/or • Construction techniques that utilize site preparation, grading, and best management practices that provide erosion and sediment control to prevent construction-related contaminants from leaving development sites and polluting local waterways. 	See Chapter 4.6, Geology and Soils, regarding soil erosion. With implementation of standard BMPs, the project would not have a significant erosion effect.
OSC-1.7	The City shall require all development to minimize soil erosion by maintaining compatible land uses, suitable building designs, and appropriate construction techniques. Contour grading, where appropriate, and revegetation shall be required to mitigate the appearance of engineered slopes and to control erosion.	See OSC-1.6.
OSC-2	To cooperate with Placer County in preserving agricultural operations which are located outside the City's planning boundaries.	For a detailed discussion of agricultural land uses, see Chapter 4.2, Agriculture and Forestry.
OSC-2.1	The City will provide for open space or other appropriate buffers, to protect agricultural operations located adjacent to the City planning boundaries,	See LU-9.6. The SPA is separated from unincorporated agricultural areas by SR 65 to

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Goal/Policy	Text	Consistency Determination
	when reviewing land use plans for such areas.	the south, and by rural residential development to the west.
OSC-2.2	The City will require that developers of residential projects, which are within general proximity of agricultural operations in the County, provide notification to new homeowners with their deeds, of the County's right to farm ordinance.	This shall be incorporated into the project documents (including tentative maps) to be considered by the City for approval.
OSC-3	To encourage energy conservation in new and existing development throughout the City.	See specific policies below.
OSC-3.1	<p>The City shall require the use of energy conservation features in new construction and renovation of existing structures in accordance with state law.</p> <p>New features that may be applied to construction and renovation include:</p> <ul style="list-style-type: none"> • Green building techniques (such as use of recycled, renewable, and reused materials; efficient lighting/power sources; design orientation; building techniques; etc.) • Cool roofs 	The proposed project would be required to comply with California Building Code Title 24 Part 11, the California Green Building Code, which has been adopted by the City as Municipal Code Section 15.04.060. Compliance with the CBC would ensure that required energy conserving features would be incorporated into the proposed project.
OSC-3.7	The City shall encourage the use of passive and active solar devices such as solar collectors, solar cells, and solar heating systems into the design of local buildings.	This policy does not create a mandatory requirement. The City shall consider this item when reviewing individual site plans for projects within the Specific Plan Area.
OSC-3.8	The City shall encourage work that building and site design take into account the solar orientation of buildings during design and construction.	See OSC 3.7.
OSC-3.9	The City will encourage the planning of shade trees within residential lots to reduce radiation heating and encourage the reduction of greenhouse gases.	See OSC 3.7.
OSC-3.10	The City will require commercial and retail parking lots will have 50% tree shading within 15 years to reduce radiation and encourage the reduction of greenhouse gases.	The SUD-B NEQ General Development Plan complies with this policy.
OSC-3.11	The City will encourage the development of energy-efficient buildings and communities.	See OSC 3.7.
OSC-3.13	The City will encourage the incorporation of energy-efficient site design such as proper orientation to benefit from passive solar heating and cooling into master planning efforts when feasible.	See OSC 3.7.
OSC-4	To preserve and enhance local streams, creeks, and aquifers.	The proposed project would designate Auburn and Markham Ravines as open space.

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Goal/Policy	Text	Consistency Determination
OSC-4.1	The City will protect local aquifers and water recharge areas.	See Chapter 4.9, Hydrology and Water Quality. The proposed project would not have a significant effect on local aquifers and water recharge areas.
OSC-4.3	The City shall ensure that new development projects do not degrade surface water and groundwater.	See Chapter 4.9, Hydrology and Water Quality. The proposed project would not degrade surface water or groundwater.
OSC-4.4	The City shall encourage the protection of 100 year floodplains and where appropriate, obtain public easements for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access and recreation.	The project would designate the 100 year floodplain as Open Space, consistent with this policy.
OSC-4.5	The City shall encourage the use of reclaimed water, in place of treated potable water for landscaping and other suitable applications.	Reclaimed water would be used as much as possible for the irrigation of large landscape areas and new commercial developments. See Section 4.17, Utilities and Service Systems, for a discussion of the project's reclaimed water use.
OSC-4.6	The City shall continue to require the use of feasible and practical best management practices (BMPs) to protect surface water and groundwater from the adverse effects of construction activities and urban runoff. Additionally, the City shall require, as part of its Storm Water NPDES Permit and ordinances, to implement the Pollution Prevention Plan (SWPPP) during construction activities for any improvement projects, new development and redevelopment projects for reducing pollutants to the maximum extent practicable.	Construction of the project will require compliance with the City's NPDES Permit and ordinances, which will include preparation of a SWPPP and incorporation of BMPs for all individual projects larger than one acre in size.
OSC-4.7	The City shall explore the possibility of using reclaimed water to irrigate new commercial developments and new areas with large landscape areas. In areas where reclaimed water can be provided in the future, the City shall require landscape irrigation to be installed so that the system could be used with reclaimed water. The City shall also explore the use of industrial process water for landscape irrigation provided that it meets City standards for irrigation.	Reclaimed water would be used as much as possible for the irrigation of large landscape areas and new commercial developments. See Section 4.17, Utilities and Service Systems, for a discussion of the project's reclaimed water use.
OSC-5	To preserve and protect existing biological resources including both wildlife and vegetative habitat.	For a detailed discussion of biological resources, see Chapter 4.4, Biological Resources.

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Goal/Policy	Text	Consistency Determination
OSC-5.1	The City shall support the preservation of heritage oaks and threatened or endangered vegetative habitat from destruction. A heritage oak shall be defined as a tree with a diameter of 36 inches measured at a point 4.5 feet above grade level (i.e., diameter at breast height or DBH).	Mitigation Measure BIO-4 would ensure consistency with this policy.
OSC-5.2	The City shall support the management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats. Such communities shall be restored or expanded, where possible and as appropriate.	The project would designate riparian areas, Auburn and Markham Ravines, as Open Space, consistent with this policy.
OSC-5.4	The City shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure that a maximum number and variety of well-adapted plants are maintained.	The project's General Development Plan encourages the use and retention of native plant species in natural open spaces near Markham and Auburn Ravine.
OSC-5.5	The City shall require that new development in areas that are known to have particular value for biological resources be carefully planned and where possible avoided so that the value of existing sensitive vegetation and wildlife habitat can be maintained.	The project would designate riparian areas, Auburn and Markham Ravines, as Open Space, consistent with this policy.
OSC-5.6	The City will maintain a policy of no net loss of wetland on a project-by-project basis, which may include an entire specific plan area. For the purpose of identifying such wetlands, the City will accept a map delineating wetlands which has been accepted by the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act of 1972. The term "no net loss" may include mitigation implemented through participation in an off-site mitigation bank or similar mitigation mechanism acceptable to the City and permitting agencies.	Mitigation Measure BIO-3 would ensure consistency with this policy.
OSC-5.7	The City may require project proponents to obtain 404 Permits, and prepare mitigation plans for, or provide for the avoidance, preservation, and maintenance of identified wetlands prior to submitting applications for land use entitlements.	Implementation of the project would require the applicant to obtain an individual 404 Permit.
OSC-5.8	The City may, but need not, accept a Corps of Engineers disclaimer of any jurisdiction over the project of a Corps of Engineers 404 permit as the City's own plan for the achievement of a project's no net loss of wetlands.	See OSC 5.6 and 5.7.
OSC-5.9	All preserved wetlands shall be dedicated to the City or a non-profit organization acceptable to the City and preserved through perpetual covenants enforceable by the City or other appropriate agencies, to ensure their maintenance and survival. With respect to areas	On site preserved wetlands shall be dedicated to the City or a non-profit organization. Off-site wetlands mitigation shall be maintained and operated by an

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Goal/Policy	Text	Consistency Determination
	dedicated to the City, acceptance shall be conditioned upon establishment of a lighting and landscaping district or other public or private funding mechanisms acceptable to the City.	appropriate organization, approved by ACOE.
OSC-5.11	Prior to project (i.e., specific plan or individual project) approval, the City shall require a biological study to be prepared by a qualified biologist for any proposed development within areas that contain a moderate to high potential for sensitive habitat. As appropriate, the study shall include the following activities: (1) inventory species listed in the California Native Plant Society Manual of California Vegetation, (2) inventory species identified by the USFWS and CDFG, (3) inventory special status species listed in the California NDDDB, and (4) field survey of the project site by a qualified biologist.	See Section 4.4, Biological Resources. Several biological studies have been prepared for the project site, see Appendix C of this EIR.
OSC-5.12	The City shall consider using appropriate mitigation measures for future projects (i.e., specific plans or individual projects) based on mitigation standards or protocols adopted by the applicable status or agency (e.g., USFWS, CDFG, etc.) with jurisdiction over any affected sensitive habitats or special status species.	All biological mitigation measures are consistent with this policy, see Section 4.4, Biological Resources for more information.
OSC-5.13	The City shall ensure that lighting in residential areas and along roadways shall be designed to prevent artificial lighting from reflecting into adjacent natural or open space areas.	See section 4.1, Aesthetics, for a discussion on lighting used with the proposed project. Artificial lighting would use fixtures that reduce spillover into adjacent natural or open space areas.
OSC-6	To preserve and protect existing archaeological, historical, and paleontological resources for their cultural values.	For a detailed discussion of archaeological, historical, and paleontological resources, see Chapter 4.5, Cultural Resources. Note that no historical resources have been identified within the Specific Plan Area.
OSC-6.7	In the event that archaeological/paleontological resources are discovered during ground disturbing activities, the City shall require that grading and construction work within 100 feet of the find shall be suspended until the significance of the features can be determined by a qualified professional archaeologist/paleontologist as appropriate. The City will require that a qualified archaeologist/paleontologist make recommendations for measures necessary to protect the find; or to undertake data recovery, excavation, analysis, and	This policy has been incorporated into Mitigation Measure CUL-1.

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Goal/Policy	Text	Consistency Determination
	curation of archaeological/paleontological materials, as appropriate.	
OSC-6.8	Prior to project approval, the City shall require project applicant to have a qualified professional archeologist conduct the following activities within the area of potential effects (APE): (1) conduct a record search at the North Central Information Center located at California State University Sacramento and other appropriate historical repositories to determine the extent of previously recorded sites and surveys within the project area, and to develop a historical context within which sites can be evaluated for significance, (2) conduct a field survey to locate, map, and record prehistoric and historic resources, and (3) prepare cultural resource inventory and evaluation reports meeting California Office of Historic Preservation Standards to document the results of the record search and field survey, and to provide significance evaluations and management recommendations for any identified historical resources within the APE.	See Section 4.5, Cultural Resources. A cultural resources inventory has been prepared for the project site.
OSC-6.9	The City shall consult with Native American representatives, including appointed representatives from United Auburn Indian Community, to discuss concerns regarding potential impacts to cultural resources and to locations of importance to Native Americans, including archaeological sites and traditional cultural properties. Coordination with the Native American Heritage Commission should begin at the onset of the review of a proposed project.	Outreach to potentially affected tribes was done during the preparation of the cultural resources inventory. As the project entitlements include a General Plan Amendment, the City initiated consultation under SB 18 in November 2015.
OSC-6.10	Consistent with CEQA Guidelines (Section 15064.5), if human remains are discovered during project construction, it is necessary to comply with state laws relating to prohibitions on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (California Health and Safety Code Section 7050.5). If any human remains are discovered or recognized in any location on the project site, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: <ul style="list-style-type: none"> A. The Placer County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and If the coroner determines that the remains are of Native American origin, <ul style="list-style-type: none"> 1. The coroner shall contact the Native American Heritage 	See Mitigation Measure CUL-2.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination												
	<p>Commission (NAHC) within 24 hours.</p> <p>2. The NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) from the deceased Native American.</p> <p>3. The MLD shall have an opportunity to make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.</p> <p>B. Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission.</p> <p>C. The County has notified the United Auburn Indian Community (UAIC) Tribal Council and solicited their input.</p>													
OSC-7	To provide and maintain park facilities that provide recreational opportunities for all residents.	The provision of park and recreational facilities is discussed in Chapter 4.14, Recreation.												
OSC-7.1	<p>The City shall provide park facilities in accordance with the following adopted park standards:</p> <table><tr><th>Parks</th><th>Standard</th></tr><tr><td>Parks without Development Agreements</td><td>5 acres/1,000 residents</td></tr><tr><td>Parks with Development Agreements</td><td>9 acres/1,000 residents</td></tr><tr><td>City-wide Park</td><td>3 acres/ 1,000 residents</td></tr><tr><td>Neighborhood/Community Park</td><td>3 acres/ 1,000 residents</td></tr><tr><td>Open Space</td><td>3 acres/ 1,000 residents</td></tr></table> <p>Note: 9 acres consist of 6 acres for active recreation and 3 acres for passive recreation. Please see Appendix B for additional information on park requirements.</p>	Parks	Standard	Parks without Development Agreements	5 acres/1,000 residents	Parks with Development Agreements	9 acres/1,000 residents	City-wide Park	3 acres/ 1,000 residents	Neighborhood/Community Park	3 acres/ 1,000 residents	Open Space	3 acres/ 1,000 residents	Based on the standard of 9 acres/1000 residents, the project does not contain adequate park space within the specific plan area. Therefore, the project would be required to pay in-lieu fees for the development of additional park facilities in the City of Lincoln.
Parks	Standard													
Parks without Development Agreements	5 acres/1,000 residents													
Parks with Development Agreements	9 acres/1,000 residents													
City-wide Park	3 acres/ 1,000 residents													
Neighborhood/Community Park	3 acres/ 1,000 residents													
Open Space	3 acres/ 1,000 residents													

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
OSC-7.6	The City will continue to collect park dedication fees, require the dedication of parkland, or a combination of both as a condition of development approval for the provision of new parks, or the rehabilitation of existing parks and recreational facilities in order to meet the City's parkland standards in Policy 7.1	See OSC-7.1.
OSC-7.7	The City shall provide for the payment of an in-lieu fee, in those instances where the City determines that park land dedication is not appropriate. The in-lieu fee shall reflect the cost of fully serviced vacant land.	See OSC-7.1
OSC-7.15	The City shall maintain wildlife habitat values during design and ongoing maintenance of new park facilities through provision of open space and wildlife corridor areas, protection of native vegetation, and control of use of herbicides and pesticides.	The project would designate riparian areas, Auburn and Markham Ravines, as Open Space, consistent with this policy. See Chapter 4.4, Biological Resources, and Chapter 4.14, Recreation, for more information.
OSC-7.16	The City shall develop linear parks and trail systems along the City's creeks and wetlands, when such improvements are not prohibited by federal and state regulations.	The proposed project would include designated open space and trails within Markham Ravine and Auburn Ravine to the extent permitted under the Clean Water Act and requirements of the RWQCB.
OSC-7.18	The City will strive to have newly dedicated, mini and neighborhood parks, constructed by residential developers in conjunction with their project, such that new residents have immediate access to park facilities.	The proposed project would include two neighborhood parks between the proposed open space and residential components.
OSC-7.19	As part of its urban design concept, the City will utilize the pocket park (approximately 0.25 to 0.50 acre) to establish a passive recreational and social gathering area in neighborhoods where it is deemed appropriate. Such parks are non-credited facilities toward parkland dedication requirements.	The project would not include any pocket parks.
OSC-7.20	The City shall design waterway and trail corridors to meet the recreational needs of the community, while maximizing public safety and access concerns. This includes locating trail corridors to ensure visibility along public roadways, where appropriate.	The proposed trail would run along the proposed right-of-way on the southern boundary of the proposed SPA.
<i>Health and Safety</i>		
HS-1	To minimize the danger of natural and Human-Made hazards and to protect residents and visitors from the dangers of earthquake, fire, flood, other natural disasters, and man-made dangers.	Natural and man-made hazards and project design features included to prevent damage to people or structures in the project

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
		vicinity are discussed in Chapter 4.6, Geology and Soils.
HS-1.1	The City shall require engineering analysis of new development proposals in areas with possible soil instability, flooding, earthquake faults, or other hazards, and to prohibit development in high danger areas.	The possibility of hazards resulting from soil instability, flooding, earthquake faults, or other hazards is discussed in Chapter 4.6, Geology and Soils. Mitigation Measure GEO-1 will ensure that hazards are sufficiently reduced.
HS-2	To minimize exposure of persons and property to damage resulting from geologic and seismic hazards.	Hazards related to geologic and seismic hazards are discussed in Chapter 4.6, Geology and Soils. Mitigation Measure GEO-1 will ensure that hazards are sufficiently minimized.
HS-2.1	The City shall require that new structures intended for human occupancy are designed and constructed to minimize risk to the safety of occupants due to ground shaking.	See HS-2
HS-2.2	To limit development in areas with severe slopes.	The project site and surroundings have a low-slope ground surface.
HS-2.3	The City shall discourage incompatible land uses for being located in areas subject to geologic or seismic hazards (e.g., liquefaction and expansive soils).	The project's land uses are compatible with the geologic characteristics of the area. See Chapter 4.6, Geology and Soils, for more information.
HS-2.4	The City shall continue to require that alterations to existing buildings and all new buildings be built according to the seismic requirements of the California Building Standard Code.	The project would comply with the requirements of the California Building Standard Code. See Chapter 4.6, Geology and Soils, for more information.
HS-3	To reduce the generation of air pollutants and promote non-polluting activities to minimize impacts to human health and the economy of the City.	See Chapter 4.3 Air Quality discusses the project's contribution to air pollutants.
HS-3.1	The City shall cooperate with other local, regional, and State agencies in developing an effective approach to implementing air quality plans that achieve State and Federal Ambient Air Quality Standards. Air quality plans shall incorporate programs developed by the Sacramento Area Council of Governments and the PCAPCD.	Implementation of air quality plans is discussed in Chapter 4.3, Air Quality.
HS-3.2	The City shall solicit and consider comments from local and regional agencies on proposed projects that	As part of the preparation of the Draft EIR, the PCAPCD was

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
	may affect regional air quality. The City shall submit development proposals to the Placer County Air Pollution Control District for review and comment in compliance with the California Environmental Quality Act (CEQA) prior to consideration by the City.	consulted. The PCAPCD will be provided with the Draft EIR for comment.
HS-3.5	The City shall require developments, where feasible, to be located, designed, and constructed in a manner that would minimize the production of air pollutants and avoid land use conflicts.	
HS-3.6	The City shall require consideration of alternatives or amendments that reduce emissions of air pollutants when reviewing project applications.	
HS-3.7	The City shall require as a condition of approval for industrial, commercial, and office projects a Transportation Management Program that is consistent with the City's circulation policies of the General Plan.	
HS-3.8	The City may require an analysis of potential air quality impacts associated with significant new developments through the environmental review process, and identification of appropriate mitigation measures prior to approval of the project development.	
HS-3.9	The City shall require contractors to implement dust suppression measures during excavation, grading, and site preparation activities. Techniques may include, but are not limited to, the following: <ul style="list-style-type: none"> • Site watering or application of dust suppressants, • Phasing or extension of grading operations, • Covering of stockpiles, • Suspension of grading activities during high wind periods (typically winds greater than 25 miles per hour), and • Revegetation of graded areas. 	
HS-3.10	Coordinating with the PCAPCD, the City shall require large development projects to mitigate air quality impacts. As feasible, mitigations may include, but are not limited to the following: <ul style="list-style-type: none"> • Providing bicycle access and bicycle parking facilities, • Providing preferential parking for high-occupancy vehicles, car pools, or alternative fuels vehicles (including neighborhood electric vehicles or NEVs), and • Establishing telecommuting programs or satellite work Centers. 	

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
HS-3.11	The City shall require the use of natural gas or the installation of low-emission, EPA-certified fireplace inserts in all open hearth fireplaces in new homes. The city shall promote the use of natural gas over wood products in space heating devices and fireplaces in all new homes and existing homes considering remodeling plans.	
HS-3.12	The City shall encourage employment-intensive development with a high floor area ratio where adequate community transit services are planned, and discourage such development where adequate community transit service is not planned.	
HS-3.13	The City shall support the location of ancillary employee services (including, but not limited to, child care, restaurants, banking facilities, convenience markets) at major employment centers for the purpose of reducing midday vehicle trips.	
HS-3.14	The City shall provide disincentives for single-occupant vehicle trips through parking supply and pricing controls in areas where supply is limited and alternative transportation modes are available.	
HS-3.17	The City shall promote street design that provides an environment which encourages neighborhood electric vehicles, transit use, biking and walking.	
HS-3.18	The City shall encourage all new development to be designed to promote pedestrian and bicycle access and circulation (including the use of NEVs), to the greatest extent feasible.	
HS-3.20	The City shall encourage commercial, retail, and residential developments to participate in or create Transportation Management Associations.	
HS-4	To minimize the possibility of the loss of life, injury, or damage to property as a result of airport hazards.	The proposed project would comply with the adopted Placer County Airport Land Use Compatibility Plan. See following impact discussion for more information.
HS-4.1	The City shall require that development around the Lincoln Regional Airport be consistent with the safety policies and land use compatibility guidelines contained in the adopted Placer County Airport Land Use Compatibility Plan and any subsequent amendments to the Plan.	The proposed project would comply with the adopted Placer County Airport Land Use Compatibility Plan. See following impact discussion for more information.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
HS-4.2	The City shall ensure that development within the airport approach and departure zones are in compliance with Part 77 of the Federal Aviation Administration Regulations (FAA regulations that address objects affecting navigable airspace).	Implementation of Mitigation Measures AES-1 and LU-1 would ensure compliance with FAA regulations.
HS-5	To protect residents and property from the use, transport and disposal of hazardous materials.	See Chapter 4.8, Hazards and Hazardous Materials.
HS-5.1	The City shall strive to ensure that hazardous materials are used, transported, and disposed within the City in a safe manner and in compliance with local, state and federal safety standards.	Hazardous material will be handled in a safe manner consistent with all relevant regulatory standards. See Chapter 4.8, Hazards and Hazardous Materials.
HS-5.4	The City shall require disclosure of hazardous materials with the County Environmental Health Department by those using them within the city or proposing to use them in new industrial or commercial activities.	See Chapter 4.8, Hazards and Hazardous Materials, for full discussion.
HS-5.7	The City shall protect soils, surface water and groundwater from contamination.	See Chapter 4.8, Hazards and Hazardous Materials, for full discussion.
HS-5.8	The City will work to educate the public as to the types of household hazardous waste and the proper method of disposal.	See Chapter 4.8, Hazards and Hazardous Materials, for full discussion.
HS-5.9	The City shall encourage household hazardous waste to be disposed of property.	See Chapter 4.8, Hazards and Hazardous Materials, for full discussion.
HS-5.11	The City shall review all proposed development projects that involve the manufacturing, use, or transporting of hazardous materials to ensure compliance with the County Hazardous Waste Management Plan or equivalent guidance.	See Chapter 4.8, Hazards and Hazardous Materials. Note that industrial uses are not proposed for the specific plan area.
HS-5.12	The City may require, as a component of the environmental review process, a hazardous materials inventory for the site, including an assessment of materials and operations for any applications for land use entitlements.	Phase I environmental site assessments have been prepared for the project site. See Chapter 4.8, Hazards and Hazardous Materials.
HS-5.13	The City shall ensure that the proponents of development projects (including new, redevelopment, remodel, or demolition projects) address existing hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site as part of the design phase for each project. Particular attention should be paid to land that contained past agricultural uses. Recommendations outlined in the studies will be implemented as part of the construction phase for each project.	Phase I environmental site assessments have been prepared for the project site. See Chapter 4.8, Hazards and Hazardous Materials.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
HS-5.14	For future City projects involving school acquisition/development projects, the City shall ensure that specific siting requirements established under the California Education Code and California Code of Regulations are addressed. These regulations require that potential school hazards relating to soils, seismicity, hazards and hazardous materials, and flooding be addressed during the school site selection process.	Not applicable.
HS-6	To minimize the risk of life and property of the City's residents from flood hazards.	The project will minimize risk of flood hazards. See Chapter 4.9, Hydrology and Water Quality.
HS-6.3	The City shall require master drainage plans as a condition of approval for large development projects.	A master drainage study was prepared by Frayji Design Group, Inc. on November 9, 2016. See Chapter 4.9, Hydrology and Water Quality, for discussion.
HS-6.4	The City shall require new residential construction to have its lowest habitable floor elevated above the base flood level elevation, determined by FEMA standards.	See Chapter 4.9, Hydrology and Water Quality, for full discussion.
HS-6.5	The City shall prohibit development along stream channels that would reduce the stream capacity, increase erosion, or cause deterioration of the channel.	Stream channels would be protected. See Chapter 4.9, Hydrology and Water Quality, and Section 4.6, Geology and Soils, for discussion.
HS-7	To minimize the risk of life and property from urban and wildland fires.	See Chapter 4.8, Hazards and Hazardous Materials, and 4.13, Public Services, for discussion.
HS-7.3	The City shall require the development of wildland fire management plans for projects adjoining significant areas of open space that may have high fuel loads.	See Chapter 4.8, Hazards and Hazardous Materials, for discussion of fire hazard. The applicant shall prepare and submit a fuel management plan as part of the restoration of Markham Ravine and Auburn Ravine.
HS-7.4	The City shall require new development to incorporate additional greenbelts, fuel breaks, fuel reduction and buffer zones around communities to minimize potential fire losses.	Fuel modification zones will be provided around the community's interface with adjacent undeveloped open space, in accordance with the requirements of the City's Fire Department. See Chapter 4.8, Hazards and Hazardous Materials.

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
HS-8	To protect residents from health hazards and annoyance associated with excessive noise levels.	See Chapter 4.11, Noise, for discussion.
HS-8.1	The City will allow the development of new noise-sensitive land uses (which include but are not limited to residential, health care facilities and schools) only in areas exposed to existing or projected levels of noise which satisfy the levels specified in Table 8.1. Noise mitigation measures spaces to levels specified in Table 8.1.	Please refer to Chapter 4.11, Noise, Figure 4.11-2, for a re-printing of the City's General Plan Table 8-1, Maximum Allowable Noise Exposure by Land Use.
HS-8.2	The City will strive to achieve exterior noise levels for existing and future dwellings in residential areas that do not exceed exterior noise levels of 60 dBA CNEL and interior noise levels of 45 dBA CNEL.	Implementation of Mitigation Measure NOI-1 would ensure that the project would not exceed noise levels of 60 dBA CNEL and interior noise levels of 45 dBA CNEL in residential areas. Please refer to Chapter 4.11, Noise, for full discussion.
HS-8.4	The City shall control noise sources in residential areas and other noise-sensitive areas by restricting truck traffic to designated truck routes.	Implementation of Mitigation Measure NOI-2 will ensure that noise resulting from trucks and mechanical equipment will be controlled.
HS-8.6	The City shall require that development around Lincoln Airport be consistent with the noise standards contained in the approved Airport Land Use Commission Plan, and where deemed appropriate, require aviation easements from new development.	The project will comply with noise standards contained in the Airport Land Use Commission Plan. See Chapter 4.11, Noise, and 4.10 Land Use, for discussion.
HS-8.9	The City shall use adopted noise compatibility guidelines to evaluate compatibility of proposed new development and ensure compatibility between residential, commercial and other surrounding land uses (See Table 8-1, Maximum Allowable Noise Exposure by Land Use).	Please refer to Chapter 4.11, Noise, Figure 4.11-2, for a re-printing of the City's General Plan Table 8-1, Maximum Allowable Noise Exposure by Land Use. Implementation of Mitigation Measure NOI-1 would reduce noise levels to be compatible with noise compatibility guidelines.
HS-8.10	The City shall require sound attenuation features such as walls, berming, and heavy landscaping between commercial and industrial uses and residential uses to reduce noise and vibration. Setback distances may also be used to reduce noise.	Noise barriers will be used to reduce sound levels and vibration from the project site. See Chapter 4.11, Noise, for full discussion.
HS-8.11	The City shall require a variety of sound attenuation features (including noise buffering or insulation) in new development along major streets and highways, and	Noise barriers will be used to reduce sound levels from major streets and highways. See

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
	along railroad tracks.	Chapter 4.11, Noise, for full discussion.
HS-8.13	The City shall work with Caltrans to mitigate noise impacts on sensitive receptors near SR65 and SR193, by requiring a variety of sound attenuation features (including noise buffering or insulation) in new construction.	Implementation of Mitigation Measure NOI-1 will ensure that appropriate noise buffers are used along SR65. See Chapter 4.11, Noise, for full discussion.
HS-8.14	<p>The City shall require noise analysis of proposed development projects as part of the environmental review process and to require mitigation measures that reduce noise impacts to acceptable levels. The noise analysis shall:</p> <ul style="list-style-type: none"> • Be the responsibility of the applicant • Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics • Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions • Estimate existing and projected noise levels in terms of Ldn/CNEL and compare the levels to the adopted policies of the City's General Plan • Recommend appropriate mitigation to achieve compatibility with the adopted noise policies and standards of the City's General Plan. Where the noise source in question consists of intermittent single events, the acoustical analysis must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance • Estimate noise exposure after the prescribed mitigation measures have been implemented. If the project does not comply with the adopted standards and policies of the City's General Plan, the analysis must provide acoustical information for a statement of overriding considerations for the project • Describe a post-project assessment program, which could be used to evaluate the effectiveness of the proposed mitigation measures 	A noise analysis was prepared for this project. See Chapter 4.11, Noise, for full discussion and mitigation measures.
HS-8.15	The City shall establish restrictions regarding the hours and days of construction activities throughout the City.	Construction activities near residential or other NSLU will be restricted to the hours

Table 4.10-2
City of Lincoln General Plan Consistency

Goal/Policy	Text	Consistency Determination
		between 7am to 7pm, Monday through Friday, as proposed in Mitigation Measure NOI-4.
HS-9.4	The City will strive to work with other local agencies including Placer County and cities within the County to develop coordinated geographical information systems (GIS) planning for emergency response services.	See Chapter 4.8, Hazards and Hazardous Materials, for a full discussion on impacts to emergency response services.
HS-9.5	The City shall ensure that the siting of critical emergency response facilities such as hospitals, fire stations, police offices, substations, emergency operations centers and other emergency service facilities and utilities have minimal exposure to flooding, seismic and geological effects, fire, and explosions.	See Chapter 4.8, Hazards and Hazardous Materials, for a full discussion on impacts to emergency response services.
<i>Housing</i>		
Housing Goal 1	Accommodate new housing to meet the needs of present and future Lincoln residents at all income levels.	The City of Lincoln does not require that all planned unit developments and specific plans provide a specific percentage of housing units affordable to low-and moderate-income households. The project includes market rate single family housing.
Housing Policy 3	New residential developments will include housing affordable to low- and moderate-income households.	The City of Lincoln does not require that all planned unit developments and specific plans provide a specific percentage of housing units affordable to low-and moderate-income households. The project includes market rate single family housing.
Housing Policy 4	Require that new residential developments meet local and state requirements for energy efficiency and mitigate adverse environmental impacts.	The project will meet local and state energy efficiency requirements.
Housing Policy 7	Ensure that neighborhoods have adequate public services and facilities that comply with City standards.	The proposed project would have adequate public services and facilities. See Chapter 4.13, Public Services, and Chapter 4.17, Utilities and Service Systems, for discussion.

Source: City of Lincoln General Plan, 2008

ALUCP

The proposed project would be located within the airport influence area of the Lincoln Regional Airport. Due to the noise and safety concerns associated with airport land uses, the Airport Land Use Compatibility Plan (ALUCP) restricts sensitive land uses to particular compatibility zones. The entirety of the proposed SPA would be within the Airport's overflight zone, within compatibility zones C1 and C2. In compatibility zone C1, noise from aircraft operations can affect noise-sensitive land uses such as residences, schools, libraries, and outdoor theaters (PCTPA 2014). Compatibility zone C2 is outside of the CNEL 55 dB noise contour. Safety is a concern within compatibility zone C2 only with regard to highly concentrated land uses and particularly risk-sensitive uses, such as schools and hospitals (PCTPA 2014). Table 4.10-1 shows the permitted land use criteria for compatibility zones C1 and C2.

Most of the SPA within compatibility zone C1 would be reserved for commercial land uses and infrastructure, which are less sensitive to noise and safety issues compared to residential land uses. The Zone C1 compatibility criteria include an average intensity of 150 persons per acre (with a maximum of 450 persons per acre), and an open land requirement of 15%. Commercial development within Zone C1 is conditionally acceptable. For major retail (regional or "big box" development with more than 300 people per building), the development is restricted to an FAR of 0.38). Local retail, such as neighborhood shops and grocery stores (less than 300 people per building), the allowable FAR is 0.59. The proposed project may include a mix of major and local retail, as well as food, gas stations, offices, and self-storage. The maximum planned commercial development is 971,000 SF of floor space. The commercial portion of the SPA is 69.7 acres, which yields a FAR of 0.32, below the most restrictive standard of 0.38. According to the ALUCP (Section 3.4), there is an assumption that a land use that complies with the FAR standard will also comply with the intensity (persons/acre) standard (PCTPA 2014). Therefore, the commercial uses of the SPA are considered consistent with the ALUCP.¹

The proposed single family portion of the specific plan area is almost entirely within Zone C2. Single-family residential development are considered normally compatible within Zone C2. Zone C2 standards call for an average maximum development density of 300 persons per acre (with a single-acre maximum of 1200 persons). The proposed residential component of the SPA would be at a density of 5 units per acre (considered low density by the general plan standards). Using the persons per residential unit estimates from the Population and Housing analysis (Chapter 4.12) yields a range of 13 to 18 persons per acre (at densities of 2.61 and 3.6 persons per unit, respectively). At the upper range of 18 persons per acre, the development is well below the ALUCP average maximum of 300

¹ In addition, calculated non-residential intensities are consistent with Zone C1 standards. Assuming the 971,000 SF of commercial is evenly divided between retail and non-retail uses (the office category is conservatively used), and using an occupancy standard of 170 SF/person for retail and 215 SF/person for office, 5044 persons would be expected at any one time in the commercial area. Dividing by 72.4 acres yields 70 persons per acre.

persons per acre. Note that approximately 30 residential units on the western edge of the residential land use area would be partially within the C1 zone. However, given the overall low intensity of commercial development and the low density of residential development within the specific plan, this would not violate the policy intention of the ALUCP.

For both zones C1 and C2, commercial and residential development should avoid the following: sources of glare (such as from mirrored or other highly reflective structures or building features) or bright lights (including search lights and laser light displays); distracting lights that could be mistaken for airport lights; sources of dust, steam, or smoke that may impair pilots' vision; sources of steam or other emissions that cause thermal plumes or other forms of unstable air; and sources of electrical interference with aircraft communications or navigation. The proposed land uses do not include industrial, resource, or energy development that could cause air emissions, thermal plumes, or electrical interference. However, highly reflective building materials or bright lights could represent a hazard to air traffic. This is a **potentially significant impact**. Mitigation Measure AES-1 (see Section 4.1, Aesthetics) would ensure that commercial and residential development is consistent with the ALUCP standards.

The proposed project would require the construction of water quality detention basins to meet storm water quality and peak run-off demands. Such facilities are allowed within the C1 and C2 zones with the following provision:

No proposed use shall be allowed that would create an increased attraction for wildlife and that is inconsistent with FAA rules and regulations including, but not limited to, FAA Advisory Circular 150/5200-33B, Hazardous Wildlife Attractants On or Near Airports and Advisory Circular 150/5200-34A, Construction or Establishment of Landfills near Public Airports. Of particular concern are landfills and certain recreational or agricultural uses that attract large flocks of birds which pose bird strike hazards to aircraft in flight. See Policy 3.5.3(a)(6). (Placer County 2014)

Improperly designed detention ponds, which maintain standing water and provide suitable habitat for migratory birds, could result in a **potentially significant impact**. This impact can be avoided through proper design in compliance with FAA guidance. This requirement is incorporated into Mitigation Measure LU-1.

MTP/SCS

The SPA is designated as a Developing Community in the 2016 MTP/SCS. This is consistent with the project, which would develop areas contiguous with the existing urban area at densities consistent with the General Plan.

Impact 4.10-3. The project would not conflict with any applicable habitat conservation plan or natural community conservation plan.

There is currently no Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP) applicable to the project area. Placer County is in the process of developing the Placer County Conservation Plan (PCCP), a joint HCP/NCCP. The proposed project would have no impact related to conflicts with HCPs or NCCPs.

4.10.5 Mitigation Measures

MM-LU-1 All water quality detention basins shall be designed to avoid creating an increased attraction for wildlife, consistent with FAA rules and regulations including, but not limited to, FAA Advisory Circular 150/5200-33B, Hazardous Wildlife Attractants On or Near Airports and Advisory Circular 150/5200-34A, Construction or Establishment of Landfills near Public Airports.

4.10.6 Level of Significance After Mitigation

Implementation of the above mitigation measure, and measure AES-1 would reduce potential land use impacts to **less-than-significant levels**.

4.10.7 Cumulative Analysis

The proposed SUD-B Northeast specific plan implements the City's General Plan within the plans proposed boundaries. Similarly, the adjacent cumulative development, Independence at Lincoln and Village 5, would implement the General Plan. The three proposed specific plans are consistent with regional plans (the 2016 MTP/SCS and the Placer County ALUCP). Therefore there is no cumulatively significant impact on land use.

4.10.8 References

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4.11 NOISE

This section describes the noise present in the project area and discusses applicable federal, state, and regional regulations pertaining to noise. This section evaluates the potential effects related to noise associated with development of the SUD-B Northeast Quadrant Specific Plan (proposed project).

Comments received in response to the Notice of Preparation (NOP, see Appendix A) included concerns regarding noise impacts on nearby residential uses.

Information contained in this section is based on the Noise Assessment Technical Report that for the proposed project that was conducted by Dudek in December 2015. This report is included as part of this EIR as **Appendix E**.

4.11.1 Existing Conditions

This section describes the existing noise conditions in the project area and also identifies the existing sensitive receptors that could be affected by the project.

4.11.1.1 Transportation Noise Sources

Aviation

The nearest public airport to the project site is the Lincoln Regional Airport located approximately 0.4 miles to the north-northwest. Based upon the Placer County Airport Land Use Compatibility Plan (PCTPA 2014), the project site is located within the Airport Influence Area, within Zone 6 (Traffic Pattern Zone). Based upon the City of Lincoln General Plan Background Report (City of Lincoln 2008a), the project site is located outside of the Lincoln Regional Airport's projected Year 2033 60 dBA CNEL noise contour. The western side of the project site is located between the airport's 55 dBA CNEL and 60 dBA CNEL noise contours.

Due to the proximity of the airport, the project site is located within zones C-1 and C-2 of the airport's Land Use Compatibility Plan (PCTPA 2014). The C-1 zone has a moderate degree of noise and risk and is considered conditionally compatible for residential uses and compatible for local parks. Cumulative noise levels can exceed CNEL 55 dB in portions of the zone and noise from individual aircraft operations is disruptive to noise-sensitive land uses. Portions of zone C-1 are located where restrictions may be required on buildings greater than 100 feet high (Federal Aviation Regulations Part 77 transitional surface airspace). The C-2 zone is outside of the CNEL 55 dB contour and safety is a concern only for uses that include a high concentration of people (i.e., schools and hospitals). The C-2 zone is compatible with residential uses (PCTPA 2014).

Roadways

Vehicular traffic along State Route 65 (SR 65) is a principal contributor to the existing noise environment within the project site, with several existing local roads (Nicolaus Road and Nelson Lane) being secondary contributors. Regional access to the project site is provided by SR 65. Primary access to the main portion of the project site is provided by Nicolaus Lane, with secondary access from First Street and Third Street.

4.11.1.2 Other Noise Sources

The project site is undeveloped land that is relatively flat and consists of disturbed non-native annual grassland. This area has been used primarily for dry crop farming (i.e., hay) and grazing land with no structures or buildings present. Other surrounding land uses include rural residential and agricultural/grazing land to the south and west in Placer County, grazing land and two industrial/manufacturing uses to the north within the City of Lincoln, and grazing land, the former wastewater treatment plant (WWTP) site, an industrial/manufacturing facility, and the southwesterly residential development in the City of Lincoln to the east.

4.11.1.3 Noise-Sensitive Land Uses

Noise-sensitive land uses (NSLU) are land uses that may be subject to stress and/or interference from excessive noise. The Noise Element of the Placer County General Plan (Placer County 2013) identifies residences, schools, health care facilities, and other similar land uses to be NSLU. Industrial and commercial land uses are generally not considered sensitive to noise, with the exception of commercial lodging facilities. NSLU in the immediate vicinity of the project site include:

- Residences located immediately to the east, along First Street, Third Street, and St. Lucia Way
- Residences located to the west, along the west side of Nelson Lane
- Residences to the east and west, along Nicolaus Road

4.11.1.4 Vibration-Sensitive Land Uses

Land uses in which ground-borne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations (FTA 2006, as cited in Appendix E) are considered “vibration-sensitive.” The degree of sensitivity depends on the specific equipment that would be affected by the ground-borne vibration. Excessive levels of ground-borne vibration of either a regular or an intermittent nature can result in annoyance to residential uses. There are no known vibration-sensitive land uses within at least several miles of the project site.

4.11.1.5 Existing Noise Levels

Existing (pre-project) noise conditions present on the project site and in the vicinity of noise sensitive land uses in the region of the project were inventoried by Dudek in December 2014. Three short-term (varying from 10 to 15 minutes duration) measurements were performed along existing roadways to characterize noise levels associated with traffic, and for calibration of the traffic noise model. The noise measurement locations are shown in Figure 4.11-1. The results of the traffic noise measurements are presented in Table 4.11-1. The highest measured average noise levels were associated with traffic on SR 65, (71 dBA Leq at a distance of approximately 20 feet from the edge of pavement. The measured noise level along Nelson Lane was 67 dBA L_{eq} at a distance of approximately 20 feet from the edge of pavement, and the noise level along Nicolaus Road was 66 dBA L_{eq} approximately 15 feet from the edge of pavement.

Table 4.11-1
Traffic Noise Level Measurements (Existing) (dBA)

Measurement #	Measurement Date	Measurement Time Period	L _{eq}	L _{max}	L _{min}	Remarks
1	10/23/2014	8:35 – 8:50	65.6	78.9	43.1	Along Nicolaus Road east of Nelson Lane
2	10/23/2014	7:35 – 7:45	67.2	80.8	52.6	Along Nelson Lane between Nicolaus Road and SR 65.
3	10/23/2014	8:05 – 8:15	70.7	82.6	51.1	Along SR 65 east of Nelson Lane

Source: Appendix E

4.11.2 Relevant Plans, Policies, and Ordinances

Federal

The following federal regulations pertaining to noise would apply to the proposed project.

Federal Aviation Administration (FAA) Standards

Enforced by the Federal Aviation Administration, Code of Federal Regulation (CFR) Title 14, Part 150 prescribes the procedures, standards and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. Title 14 also identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. The FAA has determined that interior sound levels up to 45 dBA L_{dn} (or CNEL) are acceptable within residential buildings. The FAA also considers residential land uses to be compatible with exterior noise levels at or less than 65 dBA L_{dn} (or CNEL).

Federal Highway Administration (FHWA) Standards

CFR Title 23, Part 772 sets procedures for the abatement of highway traffic noise and construction noise. Title 23 is implemented by the Federal Department of Transportation (DOT) Highway Administration (FHWA). The purpose of this regulation is to provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways. All highway projects which are developed in conformance with this regulation shall be deemed to be in conformance with the DOT-FHWA Noise Standards. Title 23 establishes a 67 dBA $L_{eq(h)}$ standard applicable to federal highway projects for evaluating impacts to land uses including residences, recreational uses, hotels, hospitals, and libraries [23 CFR Chapter 1, Part 772, Section 772.19].

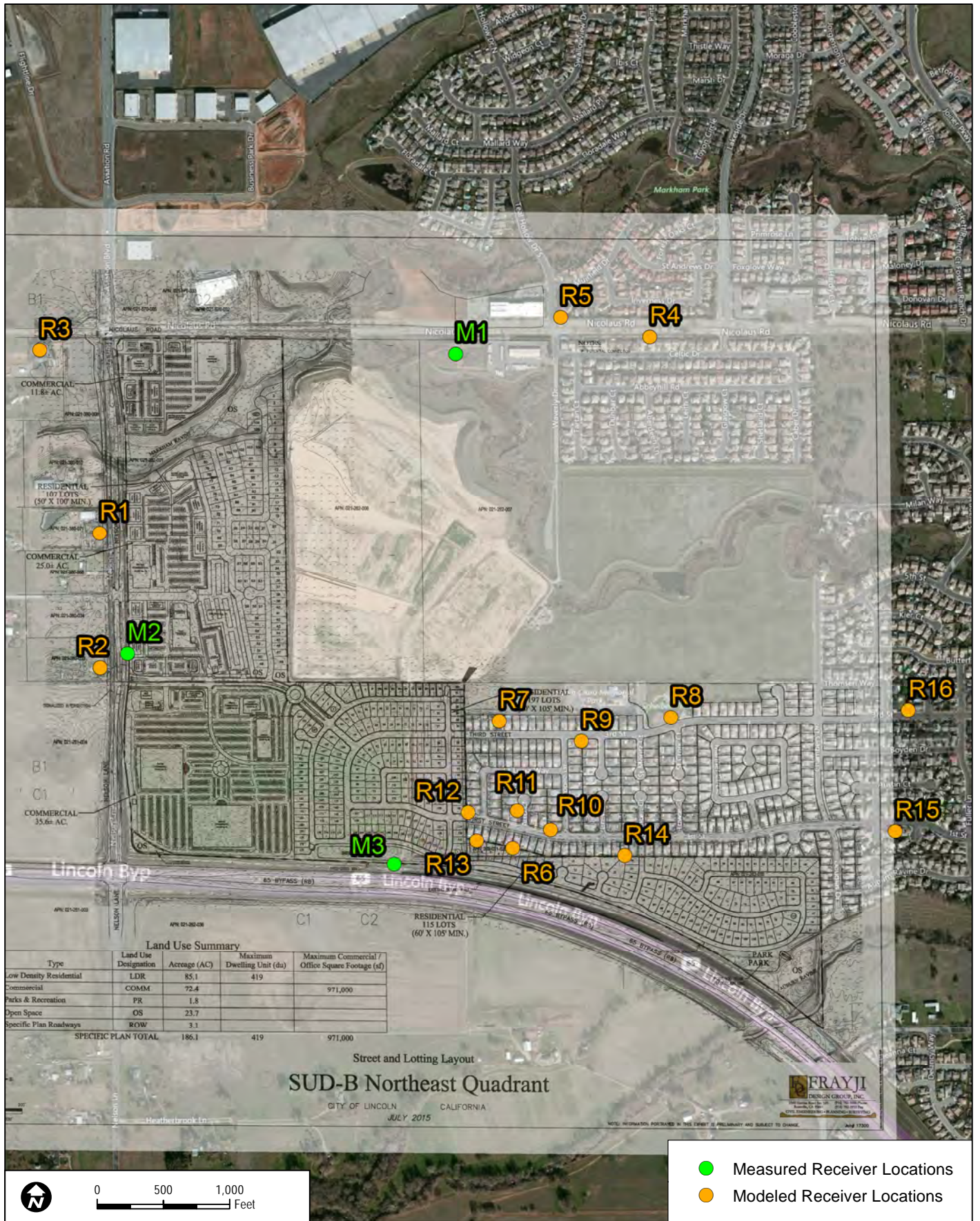
Federal Transit Administration (FTA) and Federal Railroad Administration (FRA) Standards

Although the FTA standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the FTA Transit Noise and Vibration Impact Assessment Manual (May 2006) are routinely used for projects proposed by local jurisdictions. The FTA and FRA have published guidelines for assessing the impacts of groundborne vibration associated with rail projects, which have been applied by other jurisdictions to other types of projects. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inches/second PPV.

Federal Interagency Committee on Noise (FICON)

The 2000 FICON findings provide some guidance as to the significance of changes in ambient noise levels due to transportation noise sources. The FICON recommendations are based on studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. Annoyance is a summary measure of the general adverse reaction of people to noise that interferes with speech and conversation, sleep, or the desire for a tranquil environment.

The changes in noise exposure relative to existing noise levels, as shown in Table 4.11-2, are considered to be changes that are sufficient to cause annoyance and potentially to interfere with normal activities at sensitive land uses. Although the FICON recommendations were specifically developed to address aircraft noise impacts, they are used in this analysis for traffic noise described in terms of L_{dn} or CNEL.



SOURCE: Bing Imagery, 2015; Frayji Design Group, Inc., 7/2/2015.

FIGURE 4.11-1

Noise Measurement and Modeling Locations

SUD-B Northeast Quadrant Specific Plan DEIR

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As shown in Table 4.11-2, an increase in noise from similar sources of 5 dBA or more would be noticeable where the ambient level is less than 60 dBA. Where the ambient level is between 60 and 65 dBA, an increase in noise of 3 dBA or more would be noticeable, and an increase of 1.5 dBA or more would be noticeable where the ambient noise level exceeds 65 dBA L_{dn} .

Table 4.11-2
Measures of Substantial Increase for Transportation Noise Exposure

Ambient Noise Level Without Project	Significant Impact Occurs if the Project Increases Ambient Noise Levels by:
<60 dBA	+ 5 dBA or more
<60–65 dBA	+ 3 dBA or more
>65 dBA	+ 1.5 dBA or more

Source: FICON 2000.

State

The following state regulations pertaining to noise would apply to the proposed project.

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declares that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also identifies a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

California Noise Insulation Standards (California Code of Regulations [CCR] Title 24)

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for hotels, motels, dormitories, and multi-family residential buildings (Title 24, Part 2, California Code of Regulations). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a multi-family residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or L_{dn}) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or L_{dn}) of at least 45 dBA [California's Title 24 Noise Standards, Chap. 2-35].

Local

City of Lincoln

Although some of the project site is currently located in unincorporated Placer County, the project applicant seeks approval of an annexation request by the City. For this reason, the noise standards of the City of Lincoln are primarily used for this analysis.

City of Lincoln General Plan

The Noise section of Chapter 8 (Health and Safety) of the City of Lincoln’s General Plan (City of Lincoln 2008b) establishes a maximum “normally acceptable¹” exterior noise exposure level of 60 dBA CNEL for noise sensitive uses including residences, schools, hospitals, and churches (see Table 4.11-3). The same land uses are “conditionally acceptable²” at noise levels of up to 70 dBA CNEL. Policy HS 8.1 states: “The City will allow the development of new noise sensitive land uses (which include but are not limited to residential, health care facilities and schools) only in areas exposed to existing or projected levels of noise which satisfy the levels specified in Table 8.1.” Policy HS 8.2 states: “The City will strive to achieve exterior noise levels for existing and future dwellings in residential areas that do not exceed exterior noise levels of 60 dBA CNEL and interior noise levels of 45 dBA CNEL.” In addition, Policy HS 8.15 states “The City shall establish restrictions regarding the hours and days of construction activities throughout the City.”

Table 4.11-3
Maximum Allowable Noise Exposure by Land Use

	Noise Level (CNEL)						
	0-55	56-60	61-65	66-70	71-75	75-80	>81
Residential – Low Density Single Family, Duplex, Mobile Homes							
Residential – Multiple Family, Group Homes							
Motels/Hotels							
Schools, Libraries, Churches, Hospitals, Extended Care Facilities							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor							

¹ From Table 8-1 of the General Plan (Maximum Allowable Noise Exposure by Land Use): “Specified land use is satisfactory, based on the assumption that any buildings involved are of normal, conventional construction, without any special noise insulation requirements.

² Op. cit.: “New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design.”

Table 4.11-3
Maximum Allowable Noise Exposure by Land Use

	Noise Level (CNEL)						
	0-55	56-60	61-65	66-70	71-75	75-80	>81
Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

	Normally acceptable. Specified land use is satisfactory, based on the assumption that any buildings involved are of normal, conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design.
	Normally Unacceptable. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.
	Unacceptable. New construction or development should not be undertaken.

City of Lincoln Municipal Code

Chapter 9.04 of the City of Lincoln Municipal Code addresses noise control in the City, specifically noise from sound systems, loudspeakers or radios: “It is unlawful for any person, firm or corporation to operate or employ any sound system, sound-amplifying device, radio loudspeaker, record player, radio, jukebox or other electrical or mechanical device or apparatus that emits sound waves, at any time during any day in any manner so that any sound emitted therefrom is audible to a person of average hearing faculties or capacity at a distance of more than 25 feet from the source of the sound emitted or in any manner so that the sound emitted therefrom or transferred thereover travels, is carried or projected into any public street, sidewalk, alley or place or onto, across or over any private property other than that owned by the person controlling the loudspeaker or other sound-emitting device.”

The Municipal Code does not address noise from other activities (such as construction noise or on-site operational noise from mechanical equipment such as heating, ventilation and air conditioning equipment) that would apply to the proposed project.

Placer County

Noise-sensitive land uses are located to the west, in areas which would remain in unincorporated Placer County; therefore, relevant portions of the Placer County noise policies and standards are also included here.

Placer County General Plan

Section 9 (Noise) of the Placer County General Plan (Placer County 2013) contains noise policies and standards (e.g., exterior and interior noise-level performance standards for new projects affected by or including non-transportation noise sources [included here as Table 4.11-4], and maximum allowable noise exposure levels for transportation noise sources [Table 4.11-5]). Additionally, the Placer County Municipal Code (Article 9.36) contains noise limits for sensitive receptors for daytime (7 a.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.) hours (Table 4.11-6) (Placer County 2014). The applicable policies and standards contained in the General Plan and Ordinance are summarized below.

- Policy 9.A.2: The County shall require that noise created by new non-transportation noise sources be mitigated so as not to exceed the noise level standards of Table 4.11-4 as measured immediately within the property line of lands designated for noise-sensitive uses.
- Policy 9.A.5: Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 4.11-4 at existing or planned noise-sensitive uses, the County shall require submission of an acoustical analysis as part of the environmental review process so that noise mitigation may be included in the project design.
- Policy 9.A.9: Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 4.11-5 at outdoor activity areas or interior spaces of existing noise-sensitive land uses.
- According to Article 9.36.030, “Exemptions,” construction noise is exempt from the noise ordinance standards shown in Table 4.11-6 provided that it is performed between 6:00 a.m. and 8:00 p.m., Monday through Friday, and between 8:00 a.m. and 8:00 p.m. Saturday and Sunday, and provided that all construction equipment is fitted with factory-installed muffler devices and maintained in good working order.

Table 4.11-4
Allowable L_{dn} Noise Levels within Specified Zone Districts Applicable to New Projects
Affected by or Including Non-Transportation Noise Sources

Zone District of Receptor	Property Line of Receiving Use	Interior Spaces
Residential Adjacent to Industrial	60	45
Other Residential	50	45

Table 4.11-4
Allowable L_{dn} Noise Levels within Specified Zone Districts Applicable to New Projects
Affected by or Including Non-Transportation Noise Sources

Zone District of Receptor	Property Line of Receiving Use	Interior Spaces
Office/Professional	70	45
Transient Lodging	65	45
Neighborhood Commercial	70	45
General Commercial	70	45
Heavy Commercial	75	45
Limited Industrial	75	45
Highway Service	75	45
Shopping Center	70	45
Industrial	–	45
Industrial Park	75	45
Industrial Reserve	–	–
Airport	–	45
Unclassified	–	–
Farm	(see footnote 6)	–
Agriculture Exclusive	(see footnote 6)	–
Forestry	–	–
Timberland Preserve	–	–
Recreation and Forestry	70	–
Open Space	–	–
Mineral Reserve	–	–

Table 4.11-5
Maximum Allowable Noise Exposure Transportation Noise Sources

Noise Sensitive Land Uses [FY]	Outdoor Activity Areas ¹	Interior Spaces	
	$L_{dn}/CNEL$, dB	$L_{dn}/CNEL$, dB	L_{eq} , dB ²
Residential	60 ³	45	–
Transient Lodging ⁴	60 ³	45	–
Hospitals, Nursing Homes	60 ³	45	–
Theaters, Auditoriums, Music Halls	–	–	35
Churches, Meeting Halls	60 ³	–	40
Office Buildings	–	–	45
Schools, Libraries, Museums	–	–	45
Playgrounds, Neighborhood Parks	70	–	–

¹ Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

² As determined for a typical worst-case hour during periods of use.

- ³ Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

**Table 4.11-6
Sound Level Standards (On-Site)**

Sound Level Descriptor	Daytime (7am to 10pm)	Nighttime (10pm to 7am)
Hourly L _{eq} , dB	55	45
Maximum level, (L _{max}) dB	70	65

4.11.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to noise are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to noise would occur if the project would:

1. Result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
2. Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
3. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
4. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
5. Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and if so, the project would expose people residing or working in the project area to excessive noise levels.
6. Be within the vicinity of a private airstrip, and if so, the project would expose people residing or working in the project area to excessive noise levels.

The significance criteria of items 1 through 4 are discussed below. Item 5 is discussed below in relation to the Placer County Airport Land Use Compatibility Plan.

The proposed project is not located within the vicinity of a private airstrip that would expose people residing or working on the project site to excessive noise levels. Therefore, no impact would occur and Item 6 is not discussed further.

City of Lincoln Significance Criteria

Chapter 8 (Noise) of the City’s Health & Safety Element of the City of Lincoln General Plan (2008) defines noise sensitive areas to include:

- Residential areas
- Schools
- Health Care Facilities

The above types of occupancies or development are also commonly referred to as Noise Sensitive Land Uses (NSLUs).

Policy HS-8.2 of the Health & Safety Element states that “The City will strive to achieve exterior noise levels for existing and future dwellings in residential areas that do not exceed exterior noise levels of 60 dBA CNEL and interior noise levels of 45 dBA CNEL.” Consequently, significant impacts would occur if new NSLUs were constructed in areas with existing ambient, or future predicted, noise levels exceeding 60 dBA CNEL.

For transportation-related noise, impacts are considered significant if Project-generated traffic exposes existing or potential NSLU to sound levels in excess of 60 dBA CNEL. Off-site noise impacts due to project-generated traffic would be considered significant if the project-generated traffic causes an increase of 5 dB CNEL from existing noise levels, based on the FICON recommendations for areas with ambient noise levels of less than 60 dBA without the project. Where the ambient level is between 60 and 65 dBA, an increase in noise of 3 dBA or more would be noticeable, and an increase of 1.5 dBA or more would be noticeable where the ambient noise level exceeds 65 dBA Ldn.

Also based on Policy HS-8.2 of the Health & Safety Element, impacts relating to operational noise are considered significant when Project-related commercial noise would result in exposure of NSLU to noise levels exceeding 60 dBA CNEL.

Impacts related to excessive ground-borne vibration would be significant if the project results in the exposure of persons to or generation of excessive ground-borne vibration equal to or in excess of 0.2 in/sec PPV. Construction activities within 200 feet and pile driving within 600 feet would be potentially disruptive to vibration-sensitive operations (Caltrans 2009, as cited in Appendix E).

4.11.4 Impacts Analysis

4.11.4.1 Methods of Analysis

The project setting was developed by reviewing available information on noise and sensitive receptors in the project vicinity. This review was supplemented with noise measurements. Sound level measurements were performed using a Larson Davis Model 800 integrating sound level meter, which is classified by the American National Standards Institute (ANSI) as a Type I (precision-grade) device. The sound level meter was calibrated before and after each measurement using a Larson Davis Model CAL200 calibrator.

To evaluate existing and future noise levels from traffic, the FHWA transportation noise model (TNM Version 2.5) was used. The model was first calibrated. Traffic counts were made during the noise measurements. To calibrate the noise model, the same traffic volume and vehicle composition ratios counted during the noise measurements were used along with the observed vehicle speed (which may differ from the posted speed limit for the roadway). Using vehicle counts and observed speeds, the modeled noise values were within 2 dB of the measured noise levels, which confirms the accuracy of the inputs used in the noise model. The proposed project's traffic engineers (DKS Associates) provided trip generation data and resulting roadway traffic volumes for each of the major roadways within the project area for the existing, proposed project, and cumulative scenarios. The representative existing and proposed future modeled receivers are shown in Figure 4.11-1.

As part of the CNEL calculation process, it is assumed the average hourly traffic volume in the analysis is approximately equal to 10% of the average daily trips (ADT). Ten percent of the ADT is generally accepted to be roughly equivalent to the worst-case hourly traffic volume; using this value in the noise model results in an average hourly equivalent noise level that is approximately equal to the CNEL for the corresponding ADT and actual hourly traffic distribution. Thus, this relationship results in a CNEL value that is representative of traffic noise resulting from typical daytime, evening, and nighttime traffic distribution.

To assess noise exposure for noise-sensitive land uses situated along roadways, the analysis uses the greatest anticipated future roadway traffic volume. This is the scenario associated with the cumulative-plus-project traffic forecast. Utilizing the planned roadway sections and identified future traffic volumes (from project development and cumulative traffic), traffic noise along each of the main project-related roadways was modeled with TNM 2.5. Receptor points in the noise model were placed at representative existing and proposed project-related NSLUs. Existing and proposed noise barriers were accounted for in the TNM model: the existing SR 65 noise wall (approximately 12 feet in height) which exists along a portion of the project's frontage, and the proposed project sound wall (at this time planned to be 8 feet in height) near the proposed

project's southern boundary in the residential area, were modeled. Additionally the proposed wall (at this time planned to be 6 feet in height) between the project's commercial land uses and the residential uses in the southwestern portion of the project was modeled.

4.11.4.2 Analysis

Impact 4.11-1. The project would result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Operation

Roadway Noise

On-site Impacts

Traffic-related noise was modeled for on-site locations consistent with the methodology explained in Section 4.11.4.1. The results of the modeling are presented in Table 4.11-7. On-site noise levels at NSLU would range from approximately 52 dBA CNEL (at R26) to 65 dBA CNEL (at R22). The noise levels from traffic would be 60 dBA CNEL or less at 17 of the 19 modeled on-site receivers. The noise levels at two of the on-site NSLU would exceed 60 dBA CNEL at receiver R22 (Lot 177, the southwestern-most residential lot) and at receiver R31 (proposed park site along the southeastern edge of the project site). Both of these receivers would exceed the 60 dBA CNEL significance threshold without additional mitigation measures. The proposed residential uses on the south side of the project site would have some protection from the existing SR-65 sound wall (see Figure 4.11-2), but it would not provide a complete barrier. Therefore, on-site traffic noise impacts would be potentially significant. Mitigation measures are discussed in Section 4.11.5, below.

**Table 4.11-7
Future On-Site Traffic Noise Cumulative-plus-Project Traffic Levels**

Modeled Receiver	Land Use / Adjacent Roadway	Traffic Noise Level (dBA CNEL)	In Compliance with 60 dBA CNEL or Lower Significance Threshold?
R17	Proposed residential/ Internal residential rd.	60	Yes
R18	Proposed residential/ Internal residential rd.	60	Yes
R19	Proposed residential/ 1 st St. extension	57	Yes
R20	Proposed residential/ 3 rd St. extension	54	Yes
R21	Proposed residential/ Proposed residential/ 1 st St. extension, other internal residential rd.	59	Yes
R22	Proposed residential/SR 65	65	No
R23	Proposed residential/ Internal residential rd.	57	Yes

Table 4.11-7
Future On-Site Traffic Noise Cumulative-plus-Project Traffic Levels

Modeled Receiver	Land Use / Adjacent Roadway	Traffic Noise Level (dBA CNEL)	In Compliance with 60 dBA CNEL or Lower Significance Threshold?
R24	Proposed residential/ Internal residential-commercial rd.	60	Yes
R25	Proposed residential/ Internal residential rd.	59	Yes
R26	Proposed residential/ Internal residential rd. SR65	52	Yes
R27	Proposed residential/ Internal residential rd. SR65	59	Yes
R28	Proposed residential/ Internal residential rd. SR65	58	Yes
R29	Proposed residential/ Internal residential rd. SR65	54	Yes
R30	Proposed residential/ Internal residential rd. SR65	59	Yes
R31	Proposed park/SR65	63	No
R32	Proposed residential/ Internal residential rd. SR65	60	Yes
R33	Proposed residential/ Internal residential rd.	56	Yes
R34	Proposed residential/ Internal residential rd.	56	Yes
R35	Proposed residential/ Internal residential rd.	55	Yes

Source: Dudek, Appendix E

Off-Site Impacts

In addition to on-site noise impacts, project-generated traffic would also have the potential to affect off-site existing NSLU. Using the Traffic Impact Analysis prepared by the project's traffic engineers (DKS Associates), the roadway segments with the most project-related traffic trips and with adjacent existing NSLU were identified and modeled in the TNM noise model. Table 4.11-8 summarizes the traffic-related noise levels at the representative off-site NSLUs for existing, existing plus project, cumulative, and cumulative plus project traffic scenarios. As shown in Table 4.11-8, project-related traffic noise increases would be less than three decibels at all sixteen of the modeled receivers except at R8 for the existing plus project scenario, where the predicted noise increase would be three decibels. The existing plus project traffic noise level is predicted to be 53 dBA CNEL, whereas the existing traffic noise level is 50 dBA CNEL. However, because the noise level (either with or without the project) would be below 60 dBA CNEL, impacts would be less than significant.

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Per the FICON standards, an increase of 5 dBA or more is considered significant when ambient noise levels without the project are less than 60 dBA. Since the ambient noise levels without the project are less than 60 dBA CNEL, the threshold is an increase of 5 dBA or more. Since R8 experiences only an increase of 3 dB when the project is added, the threshold is not reached. Thus, off-site impacts are less than significant.

Table 4.11-8
Existing and Cumulative Off-Site Traffic Noise (dBA CNEL)

Modeled Receiver	Land Use / Adjacent Roadway	Existing	Existing plus Project	Increase / Decrease from Project	Cumulative	Cumulative plus Project	Increase / Decrease from Project
R1	Residential/ Nelson Lane	59	60	1	65	64	-1
R2	Residential/ Nelson Lane	58	58	0	65	66	1
R3	Residential/ Nicolaus Road	54	55	1	62	62	0
R4	Residential/ Nicolaus Road	55	56	1	61	60	-1
R5	Residential/ Nicolaus Road	54	55	1	59	58	-1
R6	Residential/ SR 65	55	54	-1	60	56	-4
R7	Residential / 3 rd Street	46	48	2	50	49	-1
R8	Residential/ 3 rd Street	50	53	3	54	55	1
R9	Residential/ 3 rd Street	51	53	2	54	55	1
R10	Residential/1 st Street	56	55	-1	59	57	-2
R11	Residential/1 st Street	50	49	-1	54	51	-3
R12	Residential/1 st Street and SR 65	55	56	1	58	57	-1
R13	Residential/ SR 65	55	54	-1	60	56	-4
R14	Residential/ SR 65	53	53	0	58	55	-3
R15	Residential/1st Street	58	58	0	59	59	0
R16	Residential/ 3 rd Street	54	54	0	56	56	0

Source: Appendix E

Noise from Proposed On-Site Land Uses

The implementation of the project would also result in changes to existing noise levels on the project site by developing new stationary sources of noise and by increasing human activity throughout the project site. These sources may affect noise-sensitive land uses both on and off the project site. Proposed noise-sensitive land uses associated with the project include residential development, transient residential (a motel), and a recreational area (a park). Potential noise-generating land uses on site include commercial uses and a park.

Commercial

Potential operational noise sources associated with commercial development within the project site include heating-ventilation-air-conditioning (HVAC) equipment, commercial truck deliveries, exterior sound amplification (public address systems), and surface parking lots.

Mechanical HVAC equipment located on the ground or on rooftops of new buildings have the potential to generate noise levels which average 71 dBA CNEL at a distance of 50 feet when equipment is operating continuously for 24 hours. Depending on where it is located, HVAC equipment could have the potential to disrupt nearby residents and other noise-sensitive land uses. For a single point source such as a piece of mechanical equipment, the sound level normally decreases by about 6 dBA for each doubling of distance from the source under “hard-surface” conditions typical of a developed commercial site. Therefore, it is assumed that HVAC equipment would generate noise levels that exceed 60 dBA CNEL within approximately 150 feet of the equipment. Consequently, any on-site residences or other noise-sensitive land use proposed within 150 feet of an HVAC system associated with a new commercial use, or any development that proposes HVAC equipment within 150 feet of an existing off-site residence, could result in a potentially significant impact. The nearest off-site residences (with regard to proposed commercial uses) are located to the west of the project site. The nearest residences are located approximately 200 or more feet from proposed commercial uses. Therefore, impacts to off-site receptors related to on-site HVAC equipment would be less than significant.

In addition to HVAC systems, commercial land uses also have the potential to generate noise from truck deliveries and other mechanical equipment. Noise levels associated with commercial uses generally range from 65 dBA and 69 dBA at a distance of 50 feet from the noise source (PBS&J 2009, as cited in Appendix E). Assuming commercial land uses would be operating from 9:00 a.m. to 9:00 p.m. with a noise level of 69 dBA at 50 feet from the noise source, commercial development would have the potential to result in noise levels above 60 dBA CNEL within approximately 125 feet of the source. For the hours of 9:00 p.m. to 9:00 a.m., future average noise levels associated with truck deliveries and mechanical equipment at commercial land uses was assumed to be 50 dBA L_{eq} (PBS&J 2009, as cited in Appendix E). Commercial land uses would be located on the west side of the Specific Plan Area, with adjacent residential land uses to the east. Residential land use located within 125 feet of commercial development could be exposed to noise levels that exceed the acceptable noise level threshold of 60 dBA CNEL. This situation potentially occurs at the Commercial area between Markham Ravine and Gateway Park Drive (Gill Property) and between Gateway Park Drive and SR 65 (Peery-Arrillaga Property). The commercial-residential interface north of Gateway Park Drive includes an open space corridor and a proposed solid fence on the rear yards of the nearest residential units. This would reduce potential noise levels to less than 60 dBA. South of Gateway Park Drive, the noise levels are potentially closer, the open space corridor is much narrower, and solid

fencing is not specified (and normal 6' fencing may not be adequate). This is a potentially significant noise impact. Therefore, mitigation is required and is described below.

Noise sources from parking lots include car alarms, door slams, radios, tire squeals. These sources typically range from about 30 to 66 dBA at a distance of 100 feet (Gordon Bricken & Associates 1996, as cited in Appendix E), and are generally short-term and intermittent. Parking lots have the potential to generate noise levels that exceed 60 dBA depending on the location of the source; however, noise sources from the parking lot would be different from each other in kind, duration, and location, so that the overall effects would be separate and in most cases would not affect noise-sensitive receptors at the same time. Therefore, noise generated from parking lots would be less than significant.

Residential

Noise generated from residential uses is generally described as “nuisance noise.” Nuisance noise is defined as intermittent or temporary neighborhood noise from sources such as amplified music, barking dogs, and landscape maintenance equipment that may be disturbing to other residents. Nuisance noise impacts are more likely to occur in more densely developed areas such as multi-family or mixed-use projects where residences would be closer together and neighbors would be more likely to hear a neighbor’s music or lawnmower. These types of residential uses are not proposed for this project. The proposed project would construct relatively low density residential development, and would be less likely to be affected by neighboring nuisance noise. Chapter 9.04 of the City of Lincoln Municipal Code addresses noise control in the City, specifically noise from sound systems, loudspeakers or radios: “It is unlawful for any person, firm or corporation to operate or employ any sound system ...or other electrical or mechanical device or apparatus that emits sound waves, at any time during any day so that any sound emitted therefrom is audible to a person of average hearing faculties or capacity at a distance of more than 25 feet from the source...so that the sound emitted ... is carried or projected into any public street, sidewalk, alley or place or onto, across or over any private property.” Thus, loud music that would be audible to a neighbor in a residential zone is prohibited. Compliance with this regulation would limit exposure to excessive nuisance noise. Therefore, impacts related to nuisance noise in residential neighborhoods would be less than significant.

Recreational Facilities

Contemplated recreational facilities within the project site would include a park. Playgrounds and parks would generate incidental recreational noise such as cheering or children at play. The proposed park has not yet been designed, but potential uses and facilities could include playground equipment, a sports field, a swimming pool, and an outdoor amphitheater. During the day, noise from most of these uses would not be disruptive, because ambient noise levels are higher during the day, and

daytime activities are less prone to disruption by noise. At night, however, crowd noise and amplified noise could be loud enough to disrupt sleep and other activities. This is considered a potentially significant impact because noise could exceed City thresholds.

Construction

Construction of the proposed development would generate noise that could expose nearby receptors to elevated noise levels that may disrupt communication and routine activities. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction phase, distance between the noise source and receiver, and intervening structures. Noise from construction equipment generally exhibits point source acoustical characteristics. A point source sound is attenuated (i.e., reduced) at a rate of 6 decibels per doubling of distance from the source for “hard site” conditions and at 7.5 decibels per doubling of distance for “soft site” conditions. These rules apply to the propagation of sound waves with no obstacles between source and receivers, such as topography (ridges or berms) or structures. The range of maximum noise levels for various types of construction equipment is depicted in Table 4.11-9. Typical operating cycles may involve two minutes of full power, followed by three or four minutes at lower levels.

**Table 4.11-9
Construction Equipment Noise Emission Levels**

Equipment	Typical Sound Level (dB) - 50 feet from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	89
Pile-driver (Impact)	101
Pile-driver (Sonic)	96
Pneumatic Tool	85
Pump	76
Rail Saw	90

Table 4.11-9
Construction Equipment Noise Emission Levels

Equipment	Typical Sound Level (dB) - 50 feet from Source
Rock Drill	98
Roller	74
Saw	76
Scraper	89
Truck	88

Source: Federal Transit Administration 2006, as cited in Appendix E

The construction timeframe for the entire buildout of the project is expected to occur over a 2 to 10 year period, with multiple phases. All proposed development would involve grading and site preparation, as well as utilities installation, building construction, external/internal building work, paving and landscaping. Standard equipment, such as dozers, loaders, scrapers, and miscellaneous trucks would be used for construction. Special construction techniques such as blasting or pile driving are not anticipated.

Construction within each area of the project site would not take place all at once; some areas would be completed before other structures within the phase are under construction. Therefore, build-out of the project would have the potential to expose on-site residences, or lodging facilities developed previously to construction noise.

Although the on-site residences could be exposed to elevated construction noise levels, the exposure would be short-term, and would cease upon project construction. It is anticipated that construction activities associated with build-out of the project would take place between 6:00 a.m. and 8:00 p.m., Monday through Friday, and between 8:00 a.m. and 8:00 p.m. Saturday and Sunday. However, construction activities could take place outside these time periods for portions of the project where technical requirements dictate (such as large continuous concrete pours for commercial buildings). The nearest off-site noise-sensitive land uses to the project site are the residences located immediately adjacent to the project on the western site boundary. Construction noise impacts would therefore be potentially significant.

Conclusion

Potential noise levels associated with the operation of the proposed project may exceed applicable standards for sensitive receptors (i.e., residential and recreational uses) due to mobile noise sources from SR-65 and proposed adjacent commercial uses. In the short-term, construction noise may result in a potentially significant noise impact. Therefore, this impact is **potentially significant**.

Impact 4.11-2. The project would not result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

The main concern associated with ground-borne vibration is annoyance; however, vibration-sensitive instruments and operations, such as those found in hospitals and laboratories, can be disrupted at much lower levels. In extreme cases, vibration can cause damage to buildings, particularly those that are old or otherwise fragile. No vibration-sensitive land uses are proposed as part of the project, and none are located in the project vicinity. However, excessive levels of ground-borne vibration may be an annoyance to residences. Some common sources of ground-borne vibration are trains, and construction activities such as blasting, pile-driving, and heavy earth-moving equipment. Vibration-sensitive land uses within 600 feet of a railroad may be exposed to disruptive vibration (FTA 2006, as cited in Appendix E). Beyond 600 feet, vibration impacts would not occur. Since the project is not located near rail lines, vibration from this source would not be felt at the project site. Additionally, no pile driving or blasting is anticipated to be necessary as part of project construction. Therefore, the primary source of ground-borne vibration occurring as part of the project is conventional construction activity.

According to Caltrans, the highest measured vibration level during highway construction was 2.88 in/sec PPV at 10 feet from a pavement breaker. Other typical construction activities and equipment, such as D-8 and D-9 Caterpillars, earthmovers, and trucks have not exceeded 0.10 in/sec PPV at 10 feet.

New construction on the project site would have the potential to expose developed on-site residences or adjacent existing residences to ground-borne vibration. However, ground vibrations from construction activities would not reach the levels that can damage structures or affect activities that are not vibration-sensitive, although the vibrations may be felt by nearby persons in close proximity and result in short-term annoyance (FTA 2006, as cited in Appendix E). Beyond a distance of approximately 25 feet; however, construction vibration levels would generally be below a level of perceptibility. Impacts would therefore be **less than significant**.

Impact 4.11-3. The project would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

As described under the first threshold question, the proposed project would result in exceedances of thresholds for on-site, proposed residential uses due to traffic noise under cumulative-plus-project traffic conditions. As such, the proposed project would contribute to a substantial, permanent increase in ambient noise levels on the project site. Additionally, as described under the first threshold, noise produced by the proposed commercial uses (i.e., HVAC equipment) would increase ambient noise levels at sensitive receptor locations. This impact would be **potentially significant**.

Impact 4.11-4. The project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Construction of the proposed project would produce temporary and intermittent noise, resulting in a temporary increase in ambient noise levels in the project vicinity above levels existing without the project. As identified under the first threshold question, construction-related noise would have the potential to exceed applicable noise standards. As such, construction of the proposed project would result in a potentially significant impact relative to substantial, temporary increases in noise in the project vicinity above levels existing without the project.

Operation of the proposed project would produce intermittent, elevated noise levels with the potential to result in periodic increases in ambient noise levels in the project vicinity above levels existing without the project. As described under the first threshold question, period noises would include truck deliveries at the proposed commercial uses and nighttime events at the proposed recreational facilities. These intermittent noise events could exceed noise thresholds at the proposed residential uses closest to the commercial areas. The impacts to proposed residences south of Gateway Park Drive is potentially significant.

This impact is **potentially significant**.

Impact 4.11-5. The project is located within an airport land use plan or and would not expose people residing or working in the project area to excessive noise levels.

The project site is located approximately 0.4 miles south-southeast of the Lincoln Regional Airport. Based upon the City of Lincoln General Plan Background Report (City of Lincoln 2008, as cited in Appendix E), the project site is located outside of the Lincoln Regional Airport's projected Year 2033 60 dBA CNEL noise contour. The western side of the project site is located between the airport's 55 dBA CNEL and 60 dBA CNEL noise contours. The project site is located within zones C-1 and C-2 of the airport's Land Use Compatibility Plan (Placer County). The C-1 zone has a moderate degree of noise and risk and is considered conditionally compatible for residential uses and compatible for local parks. Cumulative noise levels can exceed CNEL 55 dB in portions of the zone and noise from individual aircraft operations is disruptive to noise-sensitive land uses. The C-2 zone is compatible with residential uses (Mead & Hunt 2014, as cited in Appendix E). The proposed project site plan is configured such that the proposed residential uses would be located within zone C-1, and the commercial uses would be located within zone C-2. Therefore, NSLU would not be exposed to excessive noise levels from aviation noise as a result of the proposed project. The impact of aircraft noise would be **less than significant**.

4.11.5 Mitigation Measures

The following feasible mitigation measures have been identified to reduce or avoid the potentially significant noise impacts described in Section 4.11.4.

NOI-1 Noise Barriers. The applicant shall install additional sound barriers (i.e., noise wall, berm or a combination of these) and/or modifications to already-proposed sound barriers, as shown in Figure 4.11-2 and described as follows:

- a. At the southwestern-most proposed residential lot (Receiver 24, Lot 177), a minimum 6-foot high, solid noise barrier shall be constructed along the southern lot line, so as to shield the private exterior rear and side yards. Additionally, the planned wall to the west of Receiver 24 (between the project's commercial land uses and the residential uses) should be constructed to a minimum 8 foot height from Lot 177 to Lot 182, at which point the height may be 6 feet.
- b. At the proposed park site along the southeastern edge of the project site (Receiver 31), the planned noise barrier should be 12 feet in height along the length of the park frontage with SR 65, at which point the wall height may then transition to 10 feet and then 8 feet.

NOI-2 Commercial Uses. During design review for the proposed project, the applicant shall demonstrate that outdoor areas associated with residential units will be protected from noise by one or a combination of the following and/or equally effective measures:

- a. Mechanical equipment associated with the commercial uses shall be shielded from view of adjacent residential uses by building parapets or located within mechanical equipment rooms, AND/OR
- b. Commercial loading docks located within 300 feet of existing or proposed residences shall be positioned in areas shielded from view of those residences by intervening commercial buildings, AND/OR
- c. Solid noise barrier shall be constructed at the boundary of the commercial uses of sufficient height to intercept line of sight between heavy trucks and the affected area of the residential use, AND/OR
- d. Truck deliveries shall be limited to daytime hours (7 a.m.–10 p.m.) AND/OR
- e. Signs shall be posted prohibiting Idling of delivery trucks to 10 minutes or less.

NOI-3 Recreational Uses. One or a combination of the following shall be used to minimize the effects of outdoor noise on nearby residences during evenings and nighttime:

- a. Any outdoor activity areas, such as sports fields or an amphitheater that seat large numbers of spectators and/or include mechanical amplification shall be sited and oriented away from residential areas, and shall be designed so that residential areas are shielded from noise from these sources; AND/OR
- b. Loudspeakers and other forms of amplification shall not be used in outdoor activity areas after 10 p.m.; AND/OR
- c. The City shall place a nuisance easement over residential lots in the vicinity of the proposed park.

NOI-4 Construction Activity Limits.

- a. Construction activity occurring within 500 feet of occupied residential or other NSLU shall be restricted to the hours between 7 a.m. to 7 p.m., Monday through Friday (unless extended by special permit).
- b. All internal combustion engines associated with stationary and mobile construction equipment shall have mufflers/silencers in good working condition equal to or better than those supplied with the equipment by the manufacturer.
- c. On-site construction staging and equipment and material laydown areas shall be located as far as practical from existing residential areas.

4.11.6 Level of Significance After Mitigation

Impact 4.11-1 would be reduced to **less than significant**. Residential and recreational uses (sensitive receptors) would be protected from exceedances of applicable noise standards through the use of permanent sound barriers (Mitigation Measure NOI-1), potential design changes at the residential-commercial interface (NOI-2), operational changes (NOI-3), and hours of construction near sensitive land uses (NOI-4).

Impact 4.11-3, a permanent increase in ambient noise levels, would be reduced to **less than significant** with the implementation of measures Mitigation Measure NOI-1 through NOI-3.

Impact 4.11-4, a substantial temporary or periodic increase in noise levels, would be reduced to **less than significant** with the implementation of measures Mitigation Measure NOI-2 through NOI-4.

4.11.7 Cumulative Analysis

Impact 4.11-1 incorporates cumulative traffic volumes to determine the significance of potential noise impacts. The cumulative effect of traffic noise is potentially significant. Implementation of MM-NOI-1 would reduce this impact to on-site sensitive receptors to below a level of significance. For non-traffic noise impacts, the only reasonably foreseeable project that could affect noise levels is the Independence at Lincoln, northeast of the project site. However, the proposed land uses adjacent to the project site are residential, and therefore would not be potential sources of substantial noise and would be compatible with the adjacent proposed project uses (residential and open space). Therefore, cumulative noise impacts would be **less than significant** with mitigation.

4.11.8 References

- City of Lincoln. 2008a. *City of Lincoln General Plan Background Report*. Prepared by Mintier & Associates. March 2008.
- City of Lincoln. 2008b. *City of Lincoln General Plan*. Prepared by Mintier & Associates. March 2008.
- City of Lincoln. 2012. “City of Lincoln General Plan Land Use and Circulation Diagram.” October 2012. Accessed July 14, 2015: <http://www.ci.lincoln.ca.us/home/showdocument?id=1461>.
- City of Lincoln Municipal Code, Title 18. Zoning.
- FICON (Federal Interagency Committee on Noise). 2000.
- Placer County. 2013. *Placer County General Plan*. Prepared by Mintier & Associates. Adopted May 21, 2013.
- PCTPA (Placer County Transportation Planning Agency). 2014. *Placer County Airport Land Use Compatibility Plans*. Adopted February 26, 2014.

4.12 POPULATION AND HOUSING

This section describes population and housing present in the project area and discusses applicable federal, state, and regional regulations pertaining to population and housing. This section evaluates the potential effects on population and housing associated with development of the SUD-B Northeast Quadrant Specific Plan (proposed project). A summary of the relevant regulatory setting and existing conditions is followed by a discussion of specific and cumulative impacts from future development permitted under the Specific Plan.

No comments were received in response to the Notice of Preparation (NOP, see Appendix A) that included concerns regarding impacts on population and housing.

Information contained in this section is based on data from the City of Lincoln 2050 General Plan (City of Lincoln 2008a), U.S. Census Bureau, California Department of Finance, and Sacramento Area Council of Governments (SACOG). Other sources consulted are listed in Section 4.12.8, References.

4.12.1 Existing Conditions

4.12.1.1 Population

Regional Setting

Placer, El Dorado, Sacramento, and Yolo counties comprise the Sacramento-Arden-Arcade-Roseville Metropolitan Statistical Area (MSA). In 2010, the estimated population of the MSA was approximately 2.1 million people (U.S. Census Bureau 2010). By 2012, the estimated population of the MSA grew by approximately 3% to 2.15 million people (U.S. Census Bureau 2012).

Placer County's growth rate slightly exceeded the MSA during the same time period. Between 2010 and 2012, Placer County grew from approximately 350,234 to 361,018 people, an increase of approximately 3% (U.S. Census Bureau 2017). The 2016 population in Placer County is estimated to be about 380,531 people (U.S. Census Bureau 2017). By 2050, it is estimated that the population in Placer County will reach 566,954 people (California Department of Finance 2015).

Table 4.12-1
Placer County and Lincoln Population Data

Location	1990	2000	2010	2015	2050
Placer County	172,796	248,399 ¹	350,234 ²	374,383 ²	566,954 ³
Lincoln	7,248	11,205 ¹	37,771 ⁴	45,038 ⁴	132,000 ⁵

Source: 1990, 2000, 2010, and 2015 population counts are from the U.S. Census. 2050 estimate for Placer County is from P-1 Report Tables, California Department of Finance; 2050 estimate for City of Lincoln from 2050 General Plan.

Sources:

- ¹ U.S. Census Bureau 2007
- ² U.S. Census Bureau 2017
- ³ California Department of Finance 2013
- ⁴ U.S. Census Bureau 2015
- ⁵ City of Lincoln 2008

City of Lincoln Population

Table 4.12-1 provides population data and projections for Lincoln. From 1990 to 2000, the City's population increased by 55%. Between 2000 and 2010, the City grew by 240%. Growth has slowed since 2010, with the total population growth increasing by 19% from 2010 to 2015. The 2015 estimated population is approximately 45,038 people (U.S. Census Bureau 2015). The adopted 2050 General Plan projects a potential population of 132,000 people at buildout in 2050 (City of Lincoln 2008c).

As of 2015, the majority of the city's population (approximately 83.4%) was non-Hispanic white. Approximately 6.7% of Lincoln residents were Asian and 19.1% were Hispanic or Latino (U.S. Census Bureau 2015).

In 2015, the median age of Lincoln residents was 42.3. Approximately 27% of Lincoln residents were seniors aged 65 and older, 24% were of family-forming age (between 25 and 44), and 20% were children under age 15 (U.S. Census Bureau 2015). The average household size in the City in 2015 was 2.61 people and approximately 71% of Lincoln households were family households (U.S. Census Bureau 2015).

4.12.1.2 Housing**Regional Housing**

In 2010, there were approximately 152,648 housing units in Placer County, of which 132,627 were occupied. The County's overall housing vacancy rate for 2010 was 13.1% (U.S. Census Bureau 2010). For 2015, it is estimated that there are 156,401 housing units in the County, of which 135,456 are occupied. The County's housing vacancy rate is at 13.4% (U.S. Census Bureau 2015).

The average household size has increased slightly, increasing from 2.58 persons in 2010 to 2.67 persons per household in 2015 (U.S. Census Bureau 2010, 2015).

SACOG projects the County will contain 229,238 housing units by 2035 (SACOG 2008a).

City of Lincoln Housing

In 2010, there were approximately 15,547 housing units in the City of Lincoln, of which 14,664 were occupied. The City's overall housing vacancy rate for 2010 was 5.7% (U.S. Census Bureau 2010).

For 2015, it is estimated that there were 17,913 housing units in the City, of which 17,224 were occupied. The housing vacancy rate for the City was lower at 3.8% (U.S. Census Bureau 2015).

The average household size has increased slightly, from 2.57 persons in 2010 to 2.61 persons per household in 2015 (U.S. Census Bureau 2010, 2015).

As of 2014, the majority of dwelling units in Lincoln (16,290 units, approximately 90%) were single-family homes. There were 1,322 units (7.5% of all housing units) in multifamily buildings and 105 mobile homes (U.S. Census Bureau 2014).

By 2035, SACOG estimates there will be 40,904 housing units in Lincoln (SACOG 2008a). Between 2000 and 2010, the number of persons per household has dropped in the City, from 2.86 persons per household, to 2.57 persons per household (US Census Bureau 2007, 2010).

Affordable Housing

The City of Lincoln does not require that all planned unit developments and specific plans provide a specified percentage of housing units affordable to low- and moderate-income households without subsidies or regulatory incentives.

Jobs-Housing Balance

A jobs-housing ratio is a numeric representation of the relationship between the total number of jobs and the total number of households in a specified region. This ratio indicates the ability of a region to provide both adequate employment and housing opportunities for its existing and projected population. The lower the jobs-housing ratio, the fewer number of jobs for residents, resulting in workers commuting out of the area; a higher jobs-housing ratio indicates a greater number of jobs, suggesting that the workers are commuting into the area. This analysis assumes one employee per household. However, because there are households with more than one worker, an overall jobs housing ratio of 1 to 1.5 is generally considered balanced (so that there is little in- or out commuting), depending on local conditions, and assuming that residents work in their community. A balance of jobs and housing can benefit the environment by reducing commute times and distances between residential areas and employment centers. Longer commutes result in increased vehicle trip length, which creates environmental effects, such as those associated with traffic congestion, air quality and noise.

Although the job-housing ratio is a planning concept, it is limited in its usefulness because it does not attempt to characterize the types of jobs or housing. For example, the ratio does not take into account the wage level of the employment opportunities or the affordability of the housing units. A region that is characterized as having an adequate jobs-housing ratio could have mostly low-wage jobs and up-scale housing. The result would be employees commuting to the area and residents commuting to

jobs outside the area, thereby exacerbating traffic and air quality problems. The jobs/housing ratio also ignores the proportion of retirees in a community. In the City of Lincoln, for example, the Sun City Lincoln Hills community has approximately 6,800 homes, over one third of all homes in the City. At least one resident in each home must be over 55 years of age, so the proportion of retired people is higher within Sun City than the rest of the city.

Regional

In 2014, there were 168,900 jobs and 136,682 households within the County. Assuming one worker per household, Placer County's 2014 jobs-to-housing ratio was 1.24. Table 4.12-2 includes a summary of the jobs and housing characteristics for Placer County.

City of Lincoln

In 2014, there were approximately 6,800 jobs and 17,064 households within Lincoln. This resulted in a jobs-housing ratio of approximately 0.40, assuming one employee per household. Table 4.11-2 summarizes the jobs and housing characteristics for the City of Lincoln.

Table 4.12-2
2014 and Projected 2035 Employment and Housing Characteristics: Placer County and City Of Lincoln

Characteristics	Placer County		Lincoln	
	2014	2035	2014	2035
Jobs	168,900 ¹	247,676 ³	6,800 ¹	38,427 ³
Housing Units	157,117 ²	229,238 ⁴	18,076 ²	40,904 ⁴
Households	136,682 ²	199,437 ⁵	17,064 ²	38,614 ⁵
Vacancy Rate	13.0% ²	13.0% ⁶	5.6% ²	5.6% ⁶
Job-Housing Ratio	1.24	1.24	0.40	1.00

Source:

- ¹ California Employment Development Department 2014
- ² California Department of Finance 2014
- ³ SACOG 2008b
- ⁴ SACOG 2008a
- ⁵ Households are approximately by applying vacancy rate to 2035 housing units
- ⁶ Year 2035 vacancy rates are approximated using 2014 vacancy rates

4.12.2 Relevant Plans, Policies, and Ordinances

Federal

There are no specific federal regulations pertaining to population and housing issues that are applicable to the proposed project.

State

California Government Code Section 65890.1 expresses the benefits of balanced employment and residential land uses, and declares the intention to move toward the goal that every California worker has available the opportunity to reside close to his or her job location.

Local

General Plan

The following goals and policies from the 2050 General Plan are relevant to population, employment, and housing issues.

Goal ED-3 To promote a diverse and balanced mix of employment and residential opportunities within the City.

Policies

ED-3.1 Business Expansion and Attraction. The City shall zone sufficient land for the expansion of existing businesses and attraction of new businesses.

ED-3.2 Workplace Alternatives. The City shall facilitate the establishment and expansion of workplace alternatives, including home-based businesses and telecommuting, through land use designations and zoning ordinances.

ED-3.3 Provide for a Diversity of Housing Choices. The City shall provide for a range of housing choices for current and future residents through land use designations and zoning ordinances.

ED-3.4 Provide Live / Work Environments. The City will look to provide for live / work environments in its historic downtown and in Village centers.

Goal ED-4 To retain existing businesses and attract new businesses to provide jobs for current and future residents.

Policies

ED-4.3 Attract New Businesses. The City shall encourage new businesses to locate in the following areas: downtown Lincoln; along the future Highway 65 Bypass; at the Lincoln Regional Airport; and in the business park surrounding the airport.

ED-4.5 Retail Market. The City shall identify a range of retail development sites and opportunities in order to promote a stronger local and regional retail market

which meets the needs of the growing Lincoln population and complements the Lincoln downtown.

ED-4.6 Regional Commercial. The City will reserve appropriately zoned property along the State Highway 65 Bypass for future regional commercial land uses such as a regional shopping center, auto mall, or other vehicle sales and services.

Goal ED-6 To preserve, enhance, and expand the existing downtown so that it remains the psychological center of Lincoln.

Policies

ED-6.8 Urban Decay. The City recognizes and supports downtown retail development as part of the City’s downtown revitalization strategy. The City also recognizes the importance of healthy neighborhood retail centers throughout the City to meet the shopping needs of Lincoln’s population. As Specific Plans with retail and/or commercial land uses are submitted for approval, the City will analyze the potential for local urban decay and regional blight.

Goal LU-1 To grow in orderly pattern consistent with the economic, social, and environmental needs of Lincoln.

Policies

LU-1.7 Housing Choices. The City will promote the application of land use designs that provide a variety of places where residents can live, including apartments, condominiums, townhouses and single family attached and detached.

LU-1.10 Mixed Land Uses. Within the designated Village areas, the City will promote a mixed land use designed to place homes together with smaller businesses, institutional, and community land uses. The Village Core area will utilize the Mixed Use (MU) designation. Mixed land uses could include vertical as well as horizontal design allowing for differing land uses within the same building, as well as within the same project area.

Goal LU-2 To designate, protect, and provide land to ensure sufficient residential development to meet community needs and projected population growth.

Policies

LU-2.8 Innovative Development. The City shall promote flexibility and innovation in residential land use through the use of planned unit developments, developer

agreements, specific plans, mixed use projects, and other innovative development and planning techniques.

Goal LU-3 To designate adequate commercial land for and promote development of commercial uses compatible with surrounding land uses to meet the present and future needs of Lincoln residents, the regional community, and visitors and to maintain economic vitality.

Policies

LU-3.2 Commercial Land Use. The City shall designate sufficient commercial land to meet the future needs of the city.

LU-3.8 Regional Commercial. The City will identify and preserve appropriate areas (based on size and location) for development of regional commercial opportunities.

Goal LU-7 To designate, protect, and provide land to ensure sufficient residential development to meet community needs and projected population growth.

Policies

LU-7.1 Jobs-Housing Balance. The City shall consider the effects of land use proposals and decisions on the South Placer area and the efforts to maintain a jobs-housing balance.

Goal HE-1 Accommodate new housing to meet the needs of present and future Lincoln residents at all income levels.

Policies

1. Provide sufficient land zoned for a variety of housing types to accommodate the City's regional housing needs allocation under the January 1, 2013–October 31, 2021 Sacramento Area Council of Governments (SACOG) Regional Housing Needs Plan.
2. Facilitate the construction of a variety of housing types affordable to all income levels.

Goal HE-3 Address special housing needs in Lincoln.

Policies

7. Address the physical, financial, and lifestyle needs of older adults in the city.
9. Address the special housing needs of large families to alleviate overcrowding in the city.

Goal HE-4 Promote equal housing opportunities.

Policies

13 Support equal housing opportunities for all city residents.

Chapter 4.10, Land Use, includes a consistency review of the adopted 2050 General Plan policies that relate to population, employment, and housing issues. Please see Chapter 4.10, Table 4.10-1 for more information on consistency with General Plan goals and policies. No inconsistencies with General Plan policies were identified. However, while City staff has done its best to ascertain consistency, the City Council makes the ultimate decision regarding consistency with the General Plan.

4.12.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to population and housing are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to population and housing would occur if the project would:

1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
2. Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.

4.12.4 Impacts Analysis

4.12.4.1 Methods of Analysis

This section describes the changes to population, employment, housing stock, and jobs-to-housing ratio that would be expected to occur within the City of Lincoln if the project is approved. The proposed project includes a mix of housing types, which would have a range of persons per household. Table 4.12-3 shows that approximately 1,548 persons at maximum would reside within the project at buildout.

Population and Employment

The proposed project is anticipated to generate between 1,122 and 1,548 new residents.

**Table 4.12-3
Project Population**

Unit Type	Persons Per Household ¹	Residential Development	
		# Units	Population
Low Density Residential	2.61	430	1,122
	3.6		1,548

¹ Lower density range is from the U.S. Census Bureau (2015), while the higher estimate is from the City of Lincoln Municipal Code for calculating park and recreation service populations (City of Lincoln 2008).

4.12.4.2 Analysis

Impact 4.12-1: The proposed project would induce substantial population growth in an area.

The project site consists of undeveloped land and is located in a low-density, rural area. Surrounding land uses include the Lincoln Regional Airport, rural-residential and agricultural/grazing land, industrial/manufacturing uses, and the Brookview residential neighborhood. Main roadways consist of two-lane roads. The project site does not include any buildings, structures, public service or active recreation facilities. The project site would be developed with 430 residential units, 69.7 acres of commercial uses, and 26.6 acres of parks and open space. The proposed project would also include 17.3 acres of major roadways. The inclusion of about 971000 square feet of commercial space would allow for new jobs to be created within the project site.

As seen above, the total population increase associated with the proposed project is estimated to be 1,548 people at maximum. The total population of the City of Lincoln was 45,038 people in 2015. Therefore, the proposed project would account for an approximately 3% increase in the City's population. The current population plus the proposed project, is consistent with the projections used in the General Plan (City of Lincoln 2008b, Figure 2-3). In addition, the planned residential component of the Northeast Quadrant of SUD-B is consistent with the overall vision for SUD-B, and the overall estimated buildout of the City's General Plan Area of 132,000 persons (City of Lincoln 2008c). The proposed project would accommodate additional population growth. However, this growth is consistent with the General Plan. The impact is therefore *less than significant*.

Impact 4.12-2: The proposed project would not displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.

The proposed SUD-B NEQ project would involve the development of a 430-unit residential development with neighborhood parks, open space, and commercial uses. The 198.4 acre project site has primarily been used for agricultural purposes in the past, including dry crop farming and grazing. The project site is currently undeveloped land, and contains no structures or buildings.

Therefore, the project would not displace a substantial number of people and would not necessitate the construction of replacement housing elsewhere, as no housing exists on the project site. *No impact* would occur to existing housing or the need for replacement housing.

Mitigation Measures

Cumulative Analysis

Future projects in the City of Lincoln include the seven villages and three special use districts (SUDs) described in the City's 2050 General Plan. These development areas will include a mixed-use design which integrates smart growth principles. This would accommodate higher density housing, neighborhood scale commercial uses, schools and recreational facilities in the village center. This cumulative analysis uses the year 2050 as the future year scenario, as this is when full buildout of the 2050 City of Lincoln General Plan is expected to occur. In addition to projected development within the City, this analysis incorporates the effects of growth within the Lincoln sphere of influence (SOD), City of Rocklin, and City of Roseville. These areas are expected to grow substantially over the next few years. Table 4.12-4 summarizes projected populations.

**Table 4.12-4
Project Site Regional Population Data**

	Year		
	2014	2035	2050
Placer County	366,115 ¹	469,016 ²	547,072 ²
Lincoln	45,206 ¹	112,209 ³	132,000 ⁴
Rocklin	59,672 ¹	69,155 ²	--
Roseville	126,956 ¹	172,500 ²	--

¹ California Department of Finance 2014

² California Department of Finance 2013

³ SACOG 2008

⁴ City of Lincoln 2008c

As the proposed project was found to have no impact on the displacement of substantial numbers of people and existing housing on the project site, this impact is not further evaluated on a cumulative basis, as no impact would occur.

The project site is currently undeveloped land in a predominantly low-density, rural area with a low population. The proposed project plans for 430 low-density residential housing units, 69.7 acres of commercial uses, and 26.6 acres of park and open space uses. The estimated population growth in the City resulting from this project is 1,548 people. This growth associated with the proposed project was incorporated into the 2050 General Plan.

As noted above, the population within the Cities of Lincoln, Rocklin, and Roseville is expected to grow over the next 20 years. This is projected to occur through new development on currently undeveloped land and within developed areas. In total, these areas are expected to grow by 122,030 people by 2035. The proposed project would account for about 1.3% of this growth.

The City of Lincoln 2050 General Plan projects the population within the City to be 132,000 people at buildout (City of Lincoln 2008). The population of the City was about 45,038 in 2015 (U.S. Census Bureau 2015). Therefore, the population in the City would increase by approximately 86,962 individuals by 2050. As the proposed project would account for an addition to the City's population of about 1,548 individuals at maximum, this is approximately 1.8% of the population growth associated with buildout of the 2050 General Plan. The SUD-B NEQ project would contribute about 1% of the total projected growth in Placer County by 2050.

Surrounding projects include the Village 5 and Independence at Lincoln projects. The Village 5 project involves construction of 8,206 housing units and approximately 4,581,600 square feet of non-residential space along the State Route 65 Corridor. The project would add about 19,449 individuals to the City's population and would account for about 14.7% of the 2050 buildout population (City of Lincoln 2016a). The Independence at Lincoln project would construct 575 single-family units and result in a population increase by 1,490 individuals, accounting for a 3.2% increase to the City's population (City of Lincoln 2016b).

The Sacramento Area Council of Governments (SACOG) adopted the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) in February 2016. The MTP/SCS includes a regional growth forecast and land use pattern for areas within the Sacramento region. The entire region is projected to grow by 811,000 people, 265,000 housing units, and 485,000 employees between 2012 and 2036. The proposed project fits the community type description of a "developing community" proposed by SACOG. Developing communities often experience high housing growth compared to employment growth and are expected to account for 47% of the additional developed acres between 2012 and 2036. The 2016 MTP/SCS included the entire SUD B area along with other proposed developments, such as Village 1, Village 7, and Village 5, in its plan. The total estimated addition of housing units associated with the Village 5 and SUD B areas is 2,147 units. The MTP/SCS forecasts that 10,841 new housing units and 10,927 new employees will be added to the City by 2036. The 2050 General Plan was developed at approximately the same time as the MTP/SCS Blueprint and the two documents are essentially consistent with each other (SACOG 2016).

As the proposed project is consistent with projected growth considered in the 2050 General Plan and the 2016 MTP/SCS, substantial population growth would not occur as a result of this project. Furthermore, growth associated with the proposed project is approximately 1.3% of the growth in the region by 2035, 1% of the growth within the County by 2050, and 1.8% of the growth

associated with the City's 2050 General Plan. This is a minimal contribution to the population within the region. Therefore, when considered with other projects, the proposed project would result in cumulative impact to substantial growth that is *less than significant*.

4.12.5 References

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4.13 PUBLIC SERVICES

This section describes the public services present in the project area and discusses applicable federal, state, and regional regulations pertaining to public services. This section evaluates the potential effects on public services associated with development of the SUD-B Northeast Quadrant Specific Plan (proposed project).

Comments received in response to the Notice of Preparation (NOP, see Appendix A) included concerns regarding impacts on existing school capacities in the project area.

Information contained in this section is based on analysis of the existing service providers and population within the project area. Other sources consulted are listed in Section 4.13.8, References.

4.13.1 Existing Conditions

This section describes the existing conditions in the project area and also identifies the public services that could be affected by the proposed project, including fire protection services, police protection services, schools, and libraries. Parks and recreational facilities are discussed in Chapter 4.14, Recreation.

4.13.1.1 Fire Protection

The majority of the proposed project site is currently in unincorporated Placer County with only a small portion located within the City of Lincoln. Unincorporated lands within the project vicinity are within Placer County and receive fire protection services from Placer County Fire Department (Placer County 2015). Upon annexation to the City of Lincoln, the City of Lincoln Fire Department (LFD) would provide fire protection services to the proposed project. The small portion of the project area within the City of Lincoln is served by the LFD.

The LFD covers roughly 20 square miles with a population of approximately 45,000 residents from its three stations located throughout the city. The closest fire station to the proposed project is located at 126 Joiner Parkway. This fire station is equipped with one Class A engine with a 1,250 GPM pump and 700 gallons of water storage and one 2,000-gallon water tender. The station is served by two firefighters between Monday and Friday from 8 am to 5 pm (City of Lincoln 2008c). The Department strives to maintain a minimum of six personnel on shift every day and is able to respond to all types of fire events, emergency medical events, and fire prevention situations. LFD staff are trained as emergency first-responders in first-aid and CPR. The LFD responded to 3,977 calls for service in 2014 (City of Lincoln 2015a). The City strives to maintain a versatile firefighting force that receives training in fire investigation, firefighter rescue, hazardous materials, and mass casualty events. They strive to maintain a fire response

time of five minutes or less as a general guideline for service provision and locating new fire stations (City of Lincoln 2008a).

4.13.1.2 Police Protection

Patrol services within the unincorporated areas surrounding the City are provided by the Placer County Sheriff's Department. These services include emergency response, crime investigation, crime prevention, animal control services, traffic management and community education. Upon annexation to the City of Lincoln, the proposed project would be served by the City of Lincoln Police Department (LPD). The LPD provides law enforcement services within the City. In 2015, the LPD responded to 12,160 911 calls for service, 19,949 law enforcement calls for service, and 26,180 police incidents (Lincoln Police Department 2015). The LPD includes three divisions with distinct tasks: Administrative Division, Operations Division, and Support Division. According to the LPD 2015 Annual Report, the Department includes 20.5 Sworn Officers, 8.5 Non-Sworn Officers, and 2 Reserves that cover the approximately 45,837 residents of Lincoln (Lincoln Police Department 2015).

The City strives to maintain an average response time of five minutes or less for priority one calls. For purposes of defining capital facilities investment for police facilities, the City bases facility needs on a staffing ratio of 1.87 sworn and 0.4 non-sworn officers per 1,000 population (City of Lincoln 2008b). The City also strives to maintain 350 square feet of facility per staff member (Placer County LAFCO 2010).

The Police Department's current, 6557-square-foot station is located at 770 7th Street, approximately 2.5 miles from the project site. The Police Department also owns a 90,000-square-foot building on Flightline Drive that is planned for renovation as the new police station (City of Lincoln 2008c). This station would be located just north of the proposed project site.

4.13.1.3 Schools

The City of Lincoln is located in the Western Placer Unified School District (WPUSD). The WPUSD currently serves approximately 6,700 students from transitional kindergarten to twelfth grade and is growing by approximately 1% each year (City of Lincoln 2015b). WPUSD operates seven elementary schools, two middle schools, one high school and one continuation school as well as a 415-acre educational ranch (City of Lincoln 2015b). The total capacity for all elementary, middle, and high schools within the WPUSD is 9,200 (WPUSD 2014).

Creekside Oaks Elementary School is located approximately 1,500 feet to the east of the proposed project with a 2014 enrollment of 612 students and a site capacity of 882. Glen Edwards Middle School is located approximately 5,500 feet to the east of the proposed project with a 2014 enrollment of 713 students and a site capacity of 1,195. Lincoln High School is

located approximately 1.28 miles to the northeast of the proposed project with a 2014 enrollment of 1,561 and a site capacity of 1,875 (WPUSD 2014).

4.13.1.4 Libraries

The City of Lincoln will provide library services to the project site. The City of Lincoln operates the Twelve Bridges Library on Twelve Bridges Drive, approximately 3 miles from the proposed project site, and the Carnegie Library on Fifth Street. The 40,000-square-foot Twelve Bridges Drive Library has the capacity for 175,000 volumes (Placer County LAFCO 2010). The City strives to provide 0.7 square feet of library space per resident. The City's Public Facilities Element Fee program requires the developers to contribute the appropriate impact fees for capital improvements to the City libraries to accommodate the new resident load.

4.13.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal regulations regarding the provision of local services.

State

The following state regulations pertaining to public services would apply to the proposed project. There are no state regulations pertaining to law enforcement services.

Fire Protection

Uniform Fire Code

The Uniform Fire Code contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, include regulations for building standards (as also set forth in the California Building Code), and fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Equipment, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hosing sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

California Department of Forestry and Fire Protection

CAL FIRE offers fire protection services for State Responsibility Areas (SRAs) and local jurisdictions with contracts with CAL FIRE. CAL FIRE also aids local fire departments by providing wildfire abatement services for their jurisdictions through mutual and automatic aid agreements. CAL FIRE also endorses state-legislated fire safety standards, supports fuel management efforts, and implements fire-safety inspections to further its objectives. CAL FIRE is responsible by law for responding to uncontrolled fire that has the capability for destruction of life, property or natural resources.

Schools

California Education Code

The California Code of Regulations (CCR), Title 5, Education Code governs all aspects of education within the state. The California Education Code authorizes the California Department of Education (CDE) to develop site selection standards for school districts which require districts to select a site that conforms to certain net acreage requirements established in the CDE's 2000 School Site Analysis and Development guidebook. The guide includes the assumption that the land purchased for school sites will be in a ratio of approximately 2:1 between the developed grounds and the building area. If the "availability of land is scarce and real estate prices are exorbitant," the site size may be reduced. CDE policy states that if a school site is less than the recommended acreage required, the district shall demonstrate how the students will be provided an adequate educational program, including physical education, as described in the district's adopted course of study. Through careful planning, a reduced project area school site could follow the recent trend of school downsizing and meet the CDE's criteria.

California State Assembly Bill 2926 – School Facilities Act of 1986

In 1986, Assembly Bill (AB) 2926 (Stirling) was enacted by the State of California authorizing entities to levy statutory fees on new residential and commercial/industrial development in order

to pay for school facilities. AB 2926, entitled the School Facilities Act of 1986, was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 et seq. of the California Government Code.

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998), known as the Leroy F. Greene School Facilities Act of 1998, created the School Facility Program where eligible school districts may obtain state bond funds. State funding requires matching local funds that generally come from developer fees. The passage of SB 50 eliminated the ability of cities and counties to require full mitigation of school impacts and replaced it with the ability for school districts to assess fees directly to offset the costs associated with increasing school capacity as a result of new development. The old “Stirling” fees were incorporated into SB 50 and are referred to as Level 1 fees. The 2016 fees are currently capped at \$3.48 per square foot for new residential development and \$0.56 per square foot for commercial and industrial (nonresidential) development and age-restricted senior housing. Districts meeting certain criteria may collect Level 2 fees as an alternative to Level 1 fees. Level 2 fees are calculated under a formula in SB 50. Level 3 fees are approximately double Level 2 fees and are implemented only when the State Allocation Board is not apportioning state bond funds. The passage of Proposition 1D on November 7, 2006, precludes the implementation of Level 3 fees for the foreseeable future. Although SB 50 states that payment of developer fees are “deemed to be complete and full mitigation” of the impacts of new development, fees and state funding do not necessarily fully fund new school facilities.

Local

The following local/regional regulations pertaining to public services would apply to the proposed project. County policies are not included or addressed in the analysis, as the proposed project would primarily be served by City-provided public services.

City of Lincoln 2050 General Plan

The Public Facilities and Services Element of the City of Lincoln General Plan provides objectives, policies, and programs regarding Public Services, including the following:

Goal PFS-1 To ensure that adequate public services and facilities are provided to meet the needs of residents of the city.

Policy PFS-1.1 The City shall ensure the provision of adequate public services and facilities to the existing areas of the city and to ensure that new development is served by a full range of public services.

Policy PFS-1.2 The City shall require that prior to any annexations to the City a detailed public facilities and financing plan be completed that considers both capital facilities and the fiscal impacts to the City’s ongoing operation and maintenance costs.

Policy PFS-1.3 During the development review process, the City shall not approve new development unless the following conditions are met:

- The applicant can demonstrate that all necessary infrastructure will be installed or adequately financed;
- Infrastructure improvements are consistent with City infrastructure plans; and
- Infrastructure improvements incorporate a range of feasible measures that can be implemented to reduce public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required improvement.

Goal PFS-8 To provide adequate fire and police protection facilities and services to ensure the safety of residents and the protection of property in the city.

Policy PFS-8.2 The City shall expand fire protection services as needed to meet fire response times.

Policy PFS-8.4 The City shall strive to maintain a firefighting capability sufficient to maintain a fire response time of five (5) minutes or less as a general guideline for service provision and locating new fire stations.

Policy PFS-8.5 The City shall provide fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain the City’s service standards (ISO rating and response time).

Policy PFS-8.8 The City shall expand police protection service consistent with community needs and provide an adequate level of service.

Policy PFS-8.11 For purposes of defining capital facilities investment for police facilities, the City shall base facility needs on a staffing ratio of 1.8 officers per 1,000 population.

Policy PFS-8.11 The City shall discourage construction of police substations, and maintain a centralized police station.

Policy PFS-8.13 The City shall implement a variety of public safety measures to address crime-related issues along City-owned trail areas. Public safety measures shall include, but not be limited to, active policing using pedestrian, bicycling, or equestrian patrols. Emergency

call boxes or solar-powered telephones shall also be placed in appropriate places along trail corridors to provide prompt access to emergency services.

Policy PFS-8.14 The City shall strive to maintain an average response time of five minutes or less for priority one calls.

Goal PFS-9 To ensure that adequate community facilities are provided and are conveniently located in order to meet the needs of residents of the city.

Policy PFS-9.1 The City shall ensure that in areas of new development, school facilities meeting adopted school district standards will be available.

Policy PFS-9.2 The City shall coordinate planning, siting, and construction of new schools with the appropriate school district to ensure that facilities are constructed.

Policy PFS-9.3 The City shall continue to expand library services, according to adopted City library standards (0.7 square feet per capita), to meet the educational, informational, and cultural needs for all community residents.

Policy PFS-9.4 The City shall ensure that community facilities, including a senior/adult services center, gymnasiums, aquatic center, and library, be planned and provided for future residents of the city.

Policy PFS-9.7 The City shall coordinate with the school district that adequate developer fees are collected in accordance with state law.

Policy PFS-9.9 To the extent allowed by State law, the City will require new projects to mitigate impacts on school facilities, which could occur through a combination of new school site dedications and the use of developer fees. The City will also work with school districts, developers, and the public to evaluate alternatives to funding/providing adequate school facilities.

City of Lincoln Public Facilities Element Fee Program

The Public Facilities Element Fee Program (PFEFP) operates as a capital facilities fee program within the City. In determining the capital facility needs, the program stipulates service level standards for public service providers. Costs are spread over new development based on an equivalent dwelling unit factor such that capital facilities costs are equally borne by residential and non-residential development (City of Lincoln 2008c).

- Fire Protection
 - 1.26 firefighters per 1,000 residents
 - 500 square feet of fire station facilities per firefighter

- 11,000 square-feet per station
 - Two fire trucks per station, one out of every six trucks is a ladder truck
- Police Protection
 - 1.87 sworn and 0.4 non-sworn staff per 1,000 residents
 - 350 square feet of police station facilities per employee
 - 1 additional police vehicle per 1,000 residents

The Public Facilities Fee has been adopted as Chapter 18.99 of the City of Lincoln Municipal Code.

4.13.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to public services are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to public services would occur if the project would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
 - a. Fire protection.
 - b. Police protection.
 - c. Schools.
 - d. Other public facilities.

4.13.4 Impacts Analysis

4.13.4.1 Methods of Analysis

This impact analysis evaluates the ability of the LFD, LPD, WPUSD, and the Lincoln Public Library to serve the proposed project through a qualitative review of project characteristics, such as location, land uses, and access routes. The analysis also addresses whether the proposed project would require the need to add more staff or construct additional facilities.

The proposed project would construct 430 single-family residences within the proposed Specific Plan area. The City uses a persons per household factor of 3.6 for single-family homes for purposes of calculating park facilities demands. Using this factor, the proposed project would

generate 1,548 residents. The WPUSD uses their own formula to estimate the number of school age children per residence (see discussion below).

The provision of park facilities is discussed in Chapter 4.14, Recreation.

The following student generation rates were used to determine the project's future enrollment needs:

Single-Family Residential:

- K-5: 0.328 students per unit
- 6-8: 0.134 students per unit
- 9-12: 0.118 students per unit

Table 4.13-1 considers the increase in demand for elementary, middle and high schools generated by the proposed project. This data is derived from the WPUSD School Facilities Master Plan, which outlines expected growth in demand for school facilities associated with projected development, and plans how to fund and respond to such growth.

Table 4.13-1
Projected Demand for School Facilities from New Lincoln Developments

	Residential Units	Students Generated (Grades K-5)	Elementary Schools Needed	Students Generated (Grades 6-8)	Middle Schools Needed	Students Generated (Grades 9-12)	High Schools Needed
SUD-B NE	429 ¹	141	0.2	57	0.0	51	0.0

¹ The proposed project includes 430 residential units, one unit greater than WPUSD's estimate of 429. The resulting difference in estimated student generation is less than one student.

4.13.4.2 Analysis

Impact 4.13-1: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

The City's firefighter to resident ratio of 1.26 firefighters per 1,000 residents and 500 square feet of fire station facilities per firefighter is taken from the City's PFEFP for this analysis. The necessary facility space required by this project is calculated using this ratio.

The project site is currently undeveloped and requires minimal service from the Placer County Fire Department, therefore the increase in population associated with this project would result in increased demand for City fire protection services and facilities. Based on the City's PFEFP standards, the proposed project would require two firefighters and 975 square feet of facility space. The project site would be served by Fire Station #34, located at 126 Joiner Parkway. As the proposed project was included in the 2050 General Plan, increased population and demand for fire protection services resulting from the proposed project was evaluated in the 2050 General Plan EIR. The 2050 General Plan EIR concluded that 98 additional full-time firefighters and four new fire stations would be required to support full buildout of the General Plan. With construction of these fire stations, there would be sufficient space to accommodate the necessary increase in firefighters and fire suppression equipment for the proposed project (City of Lincoln 2008b).

The proposed project would also necessitate an increase in LFD's service area by approximately 197 acres. The increase in the number of residents associated with the project would also result in more emergency response calls. Furthermore, developed areas could be exposed to wildfire hazards due to surrounding undeveloped grasslands. This risk can easily be reduced by keeping landscaping well-irrigated, using flame-retardant building materials, and ensuring buildings are consistent with current State and local fire codes. CAL FIRE provides wildfire suppression services to Placer County if a wildfire is to occur. In addition, the City and Placer County have a mutual aid agreement in the event a fire were to occur on County land near the project site. Therefore, risk of wildfire is not a substantial threat to the project.

Fire protection services are funded through various City tax revenues. Development of the proposed project would generate revenue to finance the expansion of additional operational services. In addition, the project applicant would pay required impact fees pursuant to the City's PFEFP to contribute their fair share of funds to construct any necessary facilities improvements or expansion. The increased demand for fire protection services associated with the proposed project would be offset by payment of required taxes and fees that would help fund ongoing service and new facilities; therefore, the proposed project would have a **less-than-significant** impact on fire protection services.

Police protection?

The City's law enforcement officer to resident ratio of 1.87 sworn officers per 1,000 residents and 0.4 non-sworn officers per 1,000 residents is taken from the PFEFP for this analysis. The PFEFP also specifies that 350 square feet of facility space must be dedicated per officer. The necessary facility space required by this project is calculated using this ratio. The proposed project site is currently undeveloped and requires minimal law enforcement services from the County Sheriff's Department at present. The proposed project would increase demand for law enforcement services through commercial and residential development and the addition of new

residents. Based on the City's standard PFEFP standards, the proposed project would require three sworn officers, one non-sworn officer, and 1,230 square feet of facility. The LPD station at 770 7th Street would serve the project site. The 2050 General Plan and 2050 General Plan EIR consider the proposed project in projections of full buildout population and demand for police protection services. The 2050 General Plan EIR concludes that buildout of the 2050 General Plan would necessitate the addition of 146 sworn police officers, 31 non-sworn police officers, and approximately 59,700 square feet of new police station area (City of Lincoln 2008b). The necessary facility space would either be added to the existing LPD station, or a new facility would be constructed.

The City's law enforcement operational services are funded through various City tax revenues. Development of the proposed project would generate property tax and sales tax revenue to finance hiring new officers and the expansion of additional services. In addition, the project applicant would pay required impact fees pursuant to the City's PFEFP to fund any necessary facilities improvements or expansion. The increased demand for police protection services due to the proposed project would be offset by payment of required taxes and PFEFP fees that would help fund ongoing service and new facilities; therefore, the proposed project would have a **less-than-significant** impact on police protection services.

Schools?

The WPUSD School Facilities Master Plan was adopted in June 2014 and identifies future plans for new schools in the district in order to plan for the increase in demand for school facilities expected within the 10 to 15 years.

The projections for future enrollment and student generation were based off of historical school enrollment data and trends of enrollment per grade level, in addition to the estimated number of residential units associated with buildout of the City under the 2050 General Plan. The predicted enrollment is then compared with existing school capacities to determine the need for additional school facilities.

As shown in Table 4.13-1, the proposed project would generate a total of 249 students, based on the assumption that 430 residential units would be constructed and that historical enrollment trends remain relevant. No new schools are planned as part of the specific plan. The site capacity of existing schools, calculated based on the number of each permanent classroom and portable classroom multiplied by the associated loading factor, allows for all middle and high school students associated with the project to be accommodated. Middle school children would attend Glen Edwards Middle School, located just east of the project site and Lincoln High School, located northeast of the project site. The elementary school serving the project site, Creekside Oaks Elementary School, would receive the most students – 141 students in Grades K-5. While

this school has the physical capacity to absorb the increased students, the WPUSD Facilities Master Plan notes that the proposed project would require 20% of the capacity of an elementary school. Additional development described in the General Plan, in particular the adjacent Village 5 project, would include future school construction that may serve the project residents.

The proposed project would be required to pay the appropriate school impact fees, which is considered full mitigation under CEQA for impacts to schools. Therefore, this impact would be considered **less-than-significant**.

Other public facilities?

The Lincoln Public Library is approximately 40,000 square feet and serves residents of the City (DOF 2015). The City requires the provision of 0.7 square feet of library space per resident. At its current size, the library would be able to serve both the existing residents of the City and the 1,548 residents generated by the proposed project. Therefore, the proposed project would have a **less-than-significant** impact on the provision of library services within the City.

4.13.5 Mitigation Measures

Impacts to public services would be less than significant and no mitigation is required. The project applicant is required to pay the appropriate development fees, including the City's public facilities fees and school impact fees. No additional mitigation measures are required.

4.13.6 Cumulative Analysis

The effects of the proposed project, when considered with other projects in the region would result in a cumulative increase in the demand for public services. The increase in demand could adversely affect public facilities, including police, fire, schools, and libraries (recreation facilities area addressed separately in Chapter 4.14). The cumulative context for this analysis is the service areas for the LFD and LPD for fire and police protection services, the WPUSD for school services, and the City for library services.

Impact 4.13-2: The proposed project, when combined with other cumulative development, would not result in the cumulative contribution to any existing impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police, fire, schools and libraries in the City of Lincoln.

Two reasonably foreseeable projects are proposed for development in the vicinity of the proposed project: Village 5 Specific Plan and the Independence at Lincoln project.

The Village 5 Specific Plan proposes development of a 4,900-acre mixed-use specific plan containing residential, commercial, park/open space, agricultural preserve, school, and public institutional land uses (Richland Communities 2015). Buildout of the land use plan is estimated to provide approximately 8,318 dwelling units (City of Lincoln 2014).

Independence at Lincoln includes 575 single-family residential homes on 94.3 acres, 45.6 acres of passive open space and preservation areas, 13.6 acres of active parks including a community center, and a 2.7-acre mixed-use area.

These projects would be served by the City of Lincoln Fire Department and Police Department. A fire station is proposed for construction within the Village 5 Specific Plan (City of Lincoln 2014). As currently proposed, the Village 5 Specific Plan includes three elementary schools, one middle school, and one high school. Independence at Lincoln includes a community center, but does not include school sites or other public facilities such as a police substation or a fire station.

The WPUSD has estimated a need for the addition of 17 elementary schools, four middle schools, and two high schools. The estimated cost for land acquisition and construction of the totality of these schools is approximately \$960 million. The cost for expansion of school facilities would be addressed through Mello-Roos/Community Facilities District Special Taxes and Bonds, developer/mitigation fees, the State's School Facility Program, and the City's general fund. Project developers would be required to pay school facilities fees to help fund future school facilities. Payment of the applicable impact fees is considered full mitigation under CEQA. In addition, project developers would pay required impact fees pursuant to the City's PFEFP to mitigate the cumulative impact of increased population and demand for public services, including police, fire protection, and library services. By paying fees to fund a planned facilities program, the cumulative service impacts are considered less than significant.

4.13.7 References

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4.14 RECREATION

This section describes the recreational resources present in the project area and discusses applicable federal, state, and regional regulations pertaining to the provision of recreational facilities. This section evaluates the potential effects on recreational facilities associated with development of the SUD-B Northeast Quadrant Specific Plan (proposed project).

Comments received in response to the Notice of Preparation (NOP, see Appendix A) included concerns regarding the provision of adequate park facilities for future residents of the proposed project. The Placer Airport Land Use Commission indicated that noise from the Lincoln Municipal Airport may affect outdoor activities but that park/recreational uses are considered compatible.

Information contained in this section is based on information provided in the project description and the proposed Specific Plan prepared by Frayji Design Group in December 2016. Other documentation used in this analysis included the City of Lincoln General Plan 2050 (General Plan). Other sources consulted are listed in Section 4.14.8, References.

4.14.1 Existing Conditions

This section describes the existing conditions in the project area and identifies the resources and facilities that could be affected by the proposed project.

4.14.1.1 Existing Setting

The City of Lincoln Parks and Recreation Department oversees the development, operation, and maintenance of parks and recreational facilities within the City. There are 18 active parks within the city limits, which include a variety of recreational facilities, including play structures, sports fields, picnic areas, trail systems, and ponds (City of Lincoln 2015a). The City also maintains approximately 1,180 acres of designated open space (City of Lincoln 2015b).

The closest existing park to the proposed project is Scheiber Park, located 0.3 miles from the proposed project site on Third Street. Scheiber Park is a 4.5-acre park with two children's play structures, swings, and two small shade structures located on Third Street and Santa Clara Way (City of Lincoln 2015a). The project site is located less than one mile from several open space areas maintained by the City's Parks and Recreation Department, including Brookview Estates (14 acres) and open space preserves within the Lincoln Crossing Development (approximately 220 acres). Markham Ravine and Auburn Ravine run through the project site, and the former Wastewater Treatment Plant is located immediately adjacent to the project site.

4.14.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal regulations related to the provision of recreational facilities.

State

The following state regulations pertaining to recreation would apply to the proposed project.

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

Local

The following local/regional regulations pertaining to recreation would apply to the proposed project.

City of Lincoln General Plan

The Open Space and Conservation Element of the City of Lincoln General Plan provides objectives, policies, and programs regarding recreational facilities, including the following:

Goal OSC-1 To designate, protect, and encourage natural resources, open space, and recreation lands in the city, protect and enhance a significant system of interconnected natural habitat areas, and provide opportunities for recreation activities to meet citizen needs.

Policy OSC-1.1 *Protect Natural Resources*. The City shall strive to protect natural resource areas, fish and wildlife habitat areas, scenic areas, open space areas and parks from encroachment or destruction by incompatible development.

Policy OSC-1.3 *Creation of Buffers*. In new development areas, the City shall encourage the use of open space or recreational buffers between incompatible land uses.

Goal OSC-7 To provide and maintain park facilities that provide recreational opportunities for all residents.

Policy OSC-7.1 *Park Facilities.* The City shall provide park facilities in accordance with the following adopted park standards:

Parks		Standard
Parks without Development Agreements		5 acres/1,000 residents
Parks with Development Agreements	City-wide Park	3 acres/1,000 residents
	Neighborhood/Community Park	3 acres/1,000 residents
	Open Space	3 acres/1,000 residents
	Total:	9 acres/1,000 residents

Note: 9 acres consist of 6 acres for active recreation and 3 acres for passive recreation. Please see Appendix B of the Lincoln General Plan for additional information on park requirements.

Policy OSC-7.2 *Recreational Needs.* The City shall provide recreation facilities and programs that meet the needs of all its citizens. Facilities shall be developed in compliance with all applicable regulations designed to address public safety and environmental impacts that may result through the construction, operation, and maintenance of these facilities.

Policy OSC-7.6 *Dedication of Park Land.* The City will continue to collect park dedication fees, require the dedication of parkland, or a combination of both as a condition of development approval for the provision of new parks, or the rehabilitation of existing parks and recreational facilities in order to meet the City's parkland standards in Policy 7.1.

Policy OSC-7.7 *In-Lieu Fees.* The City shall provide for the payment of an in-lieu fee, in those instances where the City determines that park land dedication is not appropriate. The in-lieu fee shall reflect the cost of fully serviced vacant land.

Policy OSC-7.8 *Adopted Park Standards.* The amount and location of any future parkland to be developed within the city will be determined by adopted park standards and location guidelines.

The City shall strive to provide the following recreational facilities:

- One multipurpose center per 10,000 population with the structural square footage to be determined by the City Council based on the evaluation of community needs.
- One 50 meter swimming pool per 10,000 population based upon a determination of the City Council of community needs.
- One mile of pedestrian/bicycle trails per 2,500 population.

Policy OSC-7.15 *Maintain Wildlife Habitat Values.* The City shall maintain wildlife habitat values during design and ongoing maintenance of new park facilities through provision of open space and wildlife corridor areas, protection of native vegetation, and control of use of herbicides and pesticides.

Policy OSC-7.16 *Linear Parks and Trail Systems.* The City shall develop linear parks and trail systems along the City’s creeks and wetlands, when such improvements are not prohibited by federal and state regulations.

Policy OSC-7.17 *Capital Improvement Fees.* The City will collect a capital facilities fee on new development to generate funding to construct park and recreation improvements in accordance with the requirements set forth in the City’s adopted standards.

Policy OSC-7.18 *Park Construction.* The City will strive to have newly dedicated, mini and neighborhood parks constructed by residential developers in conjunction with their project, such that new residents have immediate access to park facilities.

Policy OSC-7.19 *Pocket Parks.* As part of its urban design concept, the City will utilize the pocket park (approximately 0.25 to 0.50 acre) to establish a passive recreational and social gathering area in neighborhoods where it is deemed appropriate. Such parks are non-credited facilities toward parkland dedication requirements.

City of Lincoln Municipal Code

Chapter 12.20 codifies regulations applicable to the park system serving the City’s residents as well as inhabitants in the surrounding unincorporated areas of Placer County. These standards seek to promote equal access and enjoyment of public recreational facilities within the City and establish regulations related to noise, animals, sport facilities, and prohibited activities within parks.

Chapter 17.32 establishes standards and regulations pertaining to park dedication and fees. Land dedication received and fees collected pursuant to Chapter 17.32 allow the City to acquire new park facilities and/or finance their development. This chapter sets forth the standard by which the acreage of parkland required within a subdivision is determined.

Chapter 18.30 sets forth the permitted uses, conditional uses, height regulations, lot area, lot coverage, lot width, and yard standards for the O-S Open Space district. Permitted uses within the O-S district include parks, playgrounds and playfields, public swimming pools, golf course, country club, schools, community centers, and public buildings. Conditional uses within the O-S district include commercial uses accessory to permitted uses (such as refreshment stands, restaurants, sports equipment rental and sales, and marinas), museums, art galleries, public utility substations, and agricultural land.

4.14.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to recreation are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to recreation would occur if the project would:

1. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
2. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.14.4 Impacts Analysis

4.14.4.1 Methods of Analysis

The project setting was developed by reviewing available information on recreational facilities in the project vicinity. Information regarding the City's existing parks, recreational facilities, and open spaces were reviewed, as was information provided by the project applicant regarding recreational and open space components of the proposed project.

In order to assess whether the proposed project would have impacts related to the provision of recreational facilities, the analysis below incorporates estimates for population growth generated by the proposed project. In order to determine demand for parkland, the number of residential units in the proposed project was multiplied by the current factors contained in the City's Municipal Code to determine if park acreage is consistent with provisions set forth in the City's General Plan.

4.14.4.2 Analysis

Impact 4.14-1. The project would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

The project proposes to construct 430 residential units. The City uses an average density per single-family dwelling unit of 3.6 to determine park acreage (Municipal Code Section 17.32.040). Multiplying the number of residential units by 3.6, the proposed project would add approximately 1,548 park users to the Specific Plan area. As discussed previously, the City maintains a standard for parks with development agreements of 9 acres of park land per 1,000 residents. Of the required 9 acres per 1,000 residents, 6 acres must be for active recreational uses (such as Neighborhood or Community Parks) and 3 acres for passive recreation (such as Open Space).

This standard ensures that recreational services are provided equally to all residents and that the quality of existing facilities can be maintained. To meet this standard and avoid impacts to existing recreational facilities, the proposed project would be required to provide about 14 acres of recreational space: 9 acres of active recreation and 5 additional acres of open space.

The project proposes to construct approximately 26.6 acres of recreational uses in total. This would include two neighborhood parks totaling 5 acres: a 2.4-acre neighborhood park in the southeast of the project site and a 1.6-acre park in the south of the project site. Possible amenities at these neighborhood parks include open play areas, game courts, children's play areas with playground equipment, picnic/BBQ facilities, walking/bike paths, Bocce Ball, and shade structures. The larger neighborhood park is located adjacent to the preserved Auburn Ravine open space with the other park next to a proposed drainage basin/open space. Passive open space includes 10.4 acres at Markham Ravine, 3.9 acres at Auburn Ravine, a 1.1-acre trail between the two neighborhood parks, and 7.2 acres in landscaped corridors and drainage features (dual use detention ponds, swales, etc.). Therefore the project would exceed the open space requirement (providing 22.6 acres compared to 5 required), but would have a park deficit of 5 acres.

The proposed park facilities would not meet the City's minimum park standard. Mitigation Measure REC-1 would require the Project Applicant to pay in-lieu fees to support construction of recreational facilities in adjacent developments, including, but not limited to, the Independence at Lincoln and Village 5 projects, or for the development of citywide or regional park facilities. Payment of in-lieu fees as stipulated in the City's Municipal Code Chapter 17.32 would ensure the proposed project would have a **less-than-significant** impact on existing recreational facilities.

Impact 4.14.2. The project would include the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The proposed project would include both active and passive recreational components, which would be constructed and/or designated by the proposed project prior to being overturned to the City's Parks and Recreation Department. The proposed project would include two neighborhood parks with active recreational facilities, a 2.4-acre neighborhood park of in the southeast of the project site and a 1.6-acre park in the south of the project site. The project also proposes to set aside 22.6 acres in open space and landscape corridors.

Open space and recreational areas in SUD-B NEQ consist of naturalized open space such as Markham Ravine, Auburn Ravine, and other areas throughout the site such as the landscaped corridors, and development edge buffers. Markham and Auburn Ravines provide multi-purpose open spaces that give drainage, recreational opportunities, and aesthetic appeal to this Specific

Plan Area. Both Ravine Open Spaces will also contain trails for hiking, with future interconnection with the planned broader City of Lincoln trail system. The Riparian Corridor will be preserved, to the degree attainable, with fences and buffers to discourage direct access for the sake of sensitive species, but still allow visual enjoyment.

The Ravine Open Spaces will also provide habitat and foraging for local wildlife as well as additional natural wetland filtration of water flowing through the site. The main channels will be preserved to protect the high quality of the salmon and steelhead migratory streams. Where disturbance unavoidably occurs, the open space will be restored, as quickly as possible, to a stabilized natural condition.

By providing a natural buffer between developed uses and Markham and Auburn Ravines, the proposed open space would minimize adverse environmental impacts to these watersheds. While the proposed project could increase human access to these areas, the most biologically and hydrologically sensitive areas within these watersheds would be protected.

Construction of park and open space facilities, and enhancement of the riparian open space areas, have the potential to impact the environment, including air quality, biological resources, cultural resources, greenhouse gas emissions, and hazardous materials. Recreational facilities would be constructed concurrently with the other land uses in the Specific Plan area, and the impacts associated with park and open space land uses are fully described by this EIR. There are no unique significant impacts associated with recreational facilities. Therefore, with implementation of the mitigation measures described in this EIR, effects related to the construction of recreational facilities would have a **less-than-significant** impact.

4.14.5 Mitigation Measures

The following mitigation measure(s) would reduce the potential for impacts on recreation by ensuring that the proposed project provides adequate recreational facilities for future residents. Implementation of the following mitigation measure(s) would reduce impacts to a **less-than-significant level**.

MM-REC-1 The Project Applicant shall pay in-lieu fees for the construction of parks and recreational facilities in the vicinity of the proposed project. These fees shall be determined according to the City of Lincoln Municipal Code Chapter 17.32, after considering park and open space facilities to be constructed on the project site. The fee amount shall be based upon the fair market value of the outstanding acreage of dedicated park land required by Municipal Code Section 17.32.040, according to the increase in population generated by the proposed project. The fair market value shall be determined at the time of filing the tentative map or parcel map.

4.14.6 Level of Significance After Mitigation

Implementation of the above mitigation measures would reduce potential impacts to **less-than-significant levels**.

4.14.7 Cumulative Analysis

The effects of the proposed project, when considered with other projects in the region, would result in a cumulative impact to recreational facilities. Specifically, present and probable future projects in the vicinity of the proposed project are anticipated to increase the regional population, which could in turn increase the use of recreational facilities in the City and surrounding areas.

Two reasonably foreseeable projects are proposed for development in the vicinity of the proposed project: Independence at Lincoln and Village 5.

The Village 5 Specific Plan directs the development of a 4,900-acre mixed-use master plan containing residential, commercial, park/open space, agricultural preserve, school, and public institutional land uses (Richland Communities 2015). The Village 5 Specific Plan area would be located south of Nicolaus Road on both the north and south sides of Highway 65, immediately to the west and south of the proposed project. As currently proposed, the Village 5 Specific Plan would establish more than 1,200 acres in open space, more than 150 acres of parks, and bike and pedestrian trails (Richland Communities 2015). Under the proposed project, Markham and Auburn Ravines would be designated as Open Space Preserves, with established buffers surrounding the watersheds. The proposed project would result in a demand of 175 acres of parkland and open space (116.7 acres for active parkland and 58.3 acres for open space) due to its addition of 19,449 individuals to the City's population. Due to uncertainty regarding the proposed Regional Park in Village 5, the project may not meet the requirement for active recreational space. If this situation occurs, the developer will pay the In Lieu Fee for park and recreational facilities as set forth in Lincoln Municipal Code section 17.32.010. This fee would fund the acquisition of park land. Therefore, adequate resources to support recreational facility demand generated by this project would be available (Lincoln 2016a).

The Independence at Lincoln project includes the development of a 575 single-family unit master-planned residential community on a 194.2-acre site in the City. The development includes 93 acres of residential uses, 45.6 acres of passive open space and preservation areas, 13.6 acres of active parks, 2.7 acres of mixed-use, and 3 acres of public facilities and roadways. The project site is located about 32 miles northeast of downtown Sacramento and 27 miles south of Yuba City and is bordered by Nicolaus Road to the north, and Waverly Drive and Chambers Drive to the east. The Independence at Lincoln project would result in a population increase of 2,070 individuals and therefore require an additional 10.35 acres of parks in total. As the project includes 13.6 acres of active parks including a community center and 45.6 acres of passive open

space and preservation areas, the project far surpasses the City's requirements for park acreage. Because the project would meet the City's adopted standard of park acreage to resident ratio, Independence at Lincoln is not expected to increase demand on existing parks and the parks proposed with the SUD-B NEQ project (Lincoln 2016b).

The proposed project, in combination with other proposed development, may exceed the capacity standards for existing and proposed park facilities. However, the City has an established fee program, established by Section 17.32.101 of the Municipal code, which addresses the cumulative demand for park space. Per City regulations and Mitigation Measure REC-1, the proposed project would mitigate any cumulative impacts to park facilities. Therefore, cumulative impacts associated with recreation would be **less than significant**.

4.14.8 References

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4.15 TRAFFIC AND CIRCULATION

This section evaluates the potential traffic and circulation impacts resulting from implementation of the proposed Special Use District B (SUD-B) Northeast Quadrant Specific Plan (proposed project or proposed plan) area, and analyzes the potential environmental effects. This section summarizes the traffic impact analysis prepared by DKS Associates for the proposed project (dated November 13, 2015). A complete copy of the traffic impact analysis is included as Appendix G of this EIR. The traffic impact analysis in Appendix G used information and data collected from numerous sources, including the following:

- Lincoln Village 5 Specific Plan (City of Lincoln 2016)
- City of Lincoln 2050 General Plan (City of Lincoln 2008)
- Lincoln Village 7 Specific Plan EIR (City of Lincoln 2010)
- Placer County General Plan (Placer County 2013)
- Caltrans Corridor System Management Plan (CSMP) for State Route (SR) 65 (Caltrans 2009)

Comments received in response to the Notice of Preparation (NOP, see Appendix A) included:

- Concerns regarding impacts to the state highway system and the adjacent roadway network, with specific concern expressed regarding SR 65 and Nelson Lane.
- Impacts to storage capacity for all approaches, particularly for SR 65 and Nelson Lane.
- The potential for rear-end accidents due to queuing and speed differentials.
- Traffic impacts at the 10-year planning scenario.
- Preservation of the right-of-way for a potential future interchange at Nelson Lane.
- Encroachment permits from Caltrans for any work that would encroach onto the state right-of-way.
- Traffic flow and pedestrian hazards in front of Creekside Oaks School during drop off and pick up times.
- Bikes lanes/trails and the continuation of the bike master plan.
- Parking conditions at the Creekside Oak School.
- Exacerbation of speeding along First Street.
- Increased traffic due to the opening to First Street and Third Street.
- Increased pedestrian hazards along Third Street.

Study Scenarios

The traffic impact analysis studies the potential project-generated traffic impacts on the street system. The potential impacts of the proposed project include an analysis of the following traffic scenarios:

- **Existing Conditions:** The analysis of existing traffic conditions provides a basis for the study. The existing conditions analysis includes an assessment of present streets, traffic volumes, and operating conditions. The existing conditions are characterized in Section 4.15.1, Existing Conditions.
- **Existing Plus Project Conditions:** This analysis shows the existing traffic conditions with the addition of project-generated traffic at buildout conditions. This analysis is conducted by adding project trips (at buildout) to the existing traffic volumes. Existing- plus-project conditions are characterized in Section 4.15.4, Impact Analysis, under the first threshold.
- **Cumulative Without Project Conditions:** The objective of this phase of analysis is to estimate future traffic growth and operating conditions that could be expected to result from growth in the vicinity of the project site, absent the proposed project. Cumulative- without-project conditions are shown in Section 4.15.4, Impact Analysis, under the first threshold.
- **Cumulative Plus Project Conditions:** This is an analysis of future traffic conditions with the traffic generated by the proposed project added to the cumulative without project traffic forecasts. The impacts of the proposed project on future traffic operating conditions can then be identified by comparing cumulative plus project conditions to cumulative without project conditions. Cumulative plus project conditions are characterized in Section 4.15.4, Impact Analysis, under the first threshold.

Study Area Intersections

A study area was selected for analysis, based on the project's size, traffic generation, and existing/projected traffic conditions in the area. Figure 4.15-1 shows the locations of existing study area intersections. The study intersections that were selected for analysis are listed below¹:

1. Nelson Lane and Nicolaus Road
2. Waverly Drive and Nicolaus Rad
3. Lakeside Drive and Nicolaus Road
4. Joiner Parkway and Nicolaus Road
6. Joiner Parkway and Third Street
7. Joiner Parkway and First Street

¹ The numbering of the intersections is not sequential. Intersection numbers 5 and 9 were omitted.

8. Joiner Parkway and Ferrari Ranch Road
10. Nelson Lane and SR 65
11. Nelson Lane and Moore Road
12. SR 65 Southbound and Ferrari Ranch Road
13. SR 65 Northbound and Ferrari Ranch Road
14. Lincoln Boulevard and SR 65 Southbound
15. Lincoln Boulevard and SR 65 Northbound
16. Lincoln Boulevard and First Street
17. Lincoln Boulevard and Ferrari Ranch Road

Study Area Roadway Segments

The traffic impact analysis analyzed the proposed project's impacts on local residential roadways. The roadway segments analyzed include First Street west of Joiner Parkway and west of Chambers Drive, Third Street west of Joiner Parkway and west of Chambers Drive, and Fifth Street west of Joiner Parkway.

4.15.1 Existing Conditions

This section describes the existing transportation network in the vicinity of the project site including the roadway, transit, pedestrian, and bicycle systems. The environmental setting represents 2014–2015 conditions, corresponding to the timeframe in which the NOP was released. The majority of the traffic volume data was collected during 2014 and 2015, while a few traffic counts date back to late 2013.

4.15.1.1 Existing Transportation System

Roadway System

Figure 4.15-1 illustrates the existing roadway system in the project vicinity. Key roadways are described below.

SR 65 is a state highway that begins in Roseville (at Interstate 80) and continues through the City of Lincoln to Sheridan, Wheatland, and Yuba City to the north. SR 65 used to travel directly through downtown Lincoln but the Lincoln Bypass now directs SR65 traffic west of Lincoln. South and east of the project site, SR 65 is a four-lane freeway with interchanges at Ferrari Ranch Road, Lincoln Boulevard, and Twelve Bridges Drive in the City of Lincoln, Sunset Boulevard in the City of Rocklin, and three additional interchanges in the City of Roseville (Blue

Oaks Boulevard, Pleasant Grove Boulevard, and Galleria Boulevard/Stanford Ranch Road). To the west and north of the project site, SR 65 is a two-lane roadway with at-grade intersections at Nelson Lane and Nicolaus Road.

Nelson Lane is a north-south arterial roadway to the west of the current boundary of the City of Lincoln. Nelson Lane was recently widened from a two-lane roadway to a four-lane roadway between Nicolaus Road and SR 65. South of SR 65, it is a two-lane rural roadway that terminates at Moore Road. Nelson Lane would provide primary access to the western commercial portions of the project site. North of Nicolaus Road, Nelson Lane becomes Aviation Boulevard and provides access to Lincoln Airport and the Lincoln Air Center.

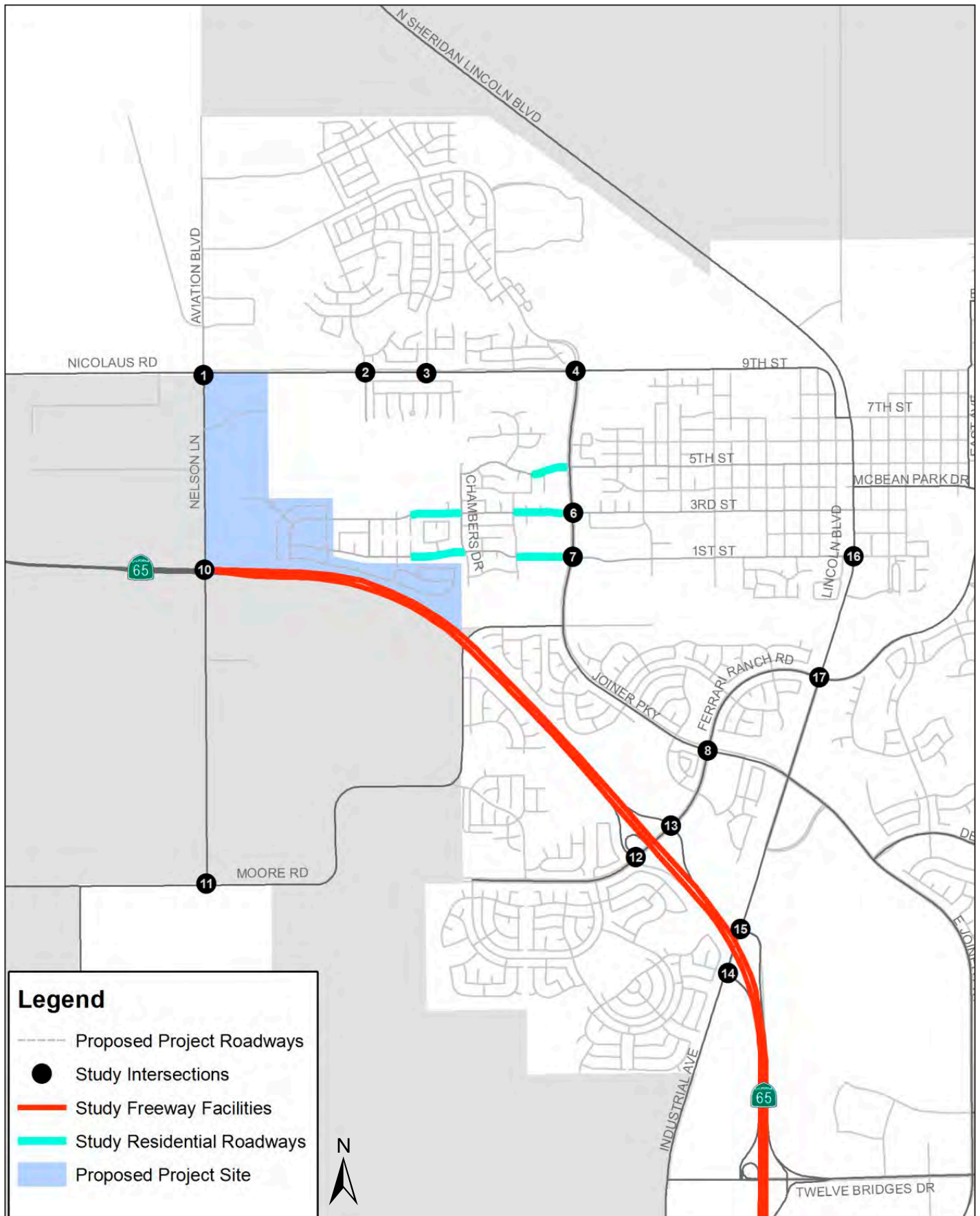
Nicolaus Road is an east-west arterial roadway to the north of the project site. Nicolaus Road is currently two lanes to the west of Nelson Lane, four lanes between Nelson Lane and Joiner Parkway, and two lanes to its terminus with 9th Street near Lincoln Boulevard.

First Street is an east-west roadway providing access from the project site to the southern portion of downtown Lincoln. First Street is a two-lane local residential roadway between its current western dead end and Lincoln Boulevard and continues into the eastern portion of downtown Lincoln.

Third Street is an east-west roadway providing access from the project site to the central portion of downtown Lincoln. Third Street is a two-lane local residential roadway between its current western dead end and Lincoln Boulevard and continues into the eastern portion of downtown Lincoln.

Joiner Parkway is a north-south roadway that begins in the western portion of downtown Lincoln and continues eastward where it connects Lincoln to northwestern Rocklin. Joiner Parkway is a four-lane arterial in the vicinity of the project site.

Lincoln Boulevard (formerly F Street and SR 65) is a two-lane roadway through downtown Lincoln and serves as the “main street” of downtown Lincoln. North of downtown Lincoln, it continues as a rural highway toward Sheridan and Wheatland. South of downtown Lincoln, it is a four-lane arterial providing access to the recently realigned SR 65. It becomes Industrial Boulevard south of its interchange with SR 65.



SOURCE: DKS (2017)

FIGURE 4.15-1
Study Intersections and Roadways

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Transit Service

The City is served by a one central transit route, called the Lincoln Circulator. Buses operate along this route hourly between 6:30 a.m. and 6:00 p.m. on weekdays and between 8:00 a.m. and 4:00 p.m. on Saturdays. The closest stop to the project site is at R Street and Shamrock Court, approximately 1.4 miles away. There is an additional route called the Lincoln School Tripper Route, which operates once in the morning and once in the afternoon on weekdays and is open to the public. The route's closest stops to the project site are at Glen Edwards Middle School (First Street and O Street) and Lincoln High School (Seventh Street and J Street). These stops are approximately 1.5 and 2.3 miles from the project site, respectively.

Placer County Transit operates the Lincoln-Rocklin-Sierra College bus route on weekdays and Saturdays. The route begins in downtown Lincoln, makes a stop at the Thunder Valley Casino on Athens Avenue, and continues through Roseville and Rocklin before reaching its destination at Sierra College. Headways are one hour. The Lincoln Circulator, also provided by Placer County Transit, provides service through downtown Lincoln as well as Ferrari Ranch Road and SR65. Headways are one hour. No transit stops are currently located within one mile of the proposed project site. Dial-a-ride service is also provided Monday through Friday from 8:00 a.m. to 5:00 p.m.

Bicycle and Pedestrian Facilities

Guidelines and design standards for bikeway planning and design in California are established by California Department of Transportation (Caltrans) and presented in the Highway Design Manual (Caltrans 2015). Bicycle facilities are defined using the following four classifications:

- Class I bikeways (bike paths) are exclusive right-of-way facilities for use by bicyclists and pedestrians, with cross flows by vehicles minimized. Motor vehicles are prohibited from bike paths per the California Vehicle Code which can be reinforced by signing.
- Class II (bike lanes) are restricted right-of-ways on a street or highway designated for use by bicycles using striping, pavement legends, and signs.
- Class III bikeways (bike routes) are facilities shared with motor vehicles on the street, which are established by placing bike route signs along roadways. Additional enhancement of Class III facilities can be provided by adding shared roadway markings (sharrows) along the route.
- Class IV (bikeways) are bikeways for the exclusive use of bicycles and includes a separation between the bike facility and vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

In the vicinity of the proposed project, Class I multi-use paths currently exist along Nicolaus Road between Waverly Drive and Joiner Parkway, Ferrari Ranch Road between McBean Park Drive and west of Ingram Parkway as well as along natural waterways, such as Auburn Ravine, North Ingram Slough, and South Ingram Slough. Class II bike lanes exist on several roadways adjacent to the study area, including Joiner Parkway, Ferrari Ranch Road, and Aviation Boulevard.

Sidewalks are present on both sides of the street in the residential areas to the northeast, east, and southeast of the project site. Sidewalks are absent on SR65, Nelson Lane / Aviation Boulevard and Nicolaus Road within the study area.

4.15.1.2 Existing Traffic Volumes and Levels of Service

The following discussion presents the existing traffic operations for each of the study intersections and describes the methodology used to assess operations.

Level of Service Methodology

Operations at intersections are typically described in terms of level of service (LOS). LOS is a qualitative measure of operations with LOS A representing excellent (free-flow) conditions and LOS F representing extreme congestion.

While previous analyses within the City of Lincoln such as the Lincoln 2050 General Plan Update have utilized the Circular 212 (Transportation Research Board 1980) this analysis is based on the more up to date Highway Capacity Manual (HCM) 2010 operations methodology in order to be consistent with the analysis concurrently being completed for the adjacent Village 5 project as well as state of the practice methods. The HCM method takes into account existing signal timing, minimum green times, vehicle volumes, pedestrian and bike movements, user defined saturation flow rates, and storage bay lengths. The resulting intersection delay (in seconds) is then used to identify an LOS value. The output for this method is a delay value (in seconds) and an LOS for the intersection as a whole.

Table 4.15-1 provides LOS definitions and operating conditions. LOS D is generally considered to be the lowest acceptable LOS in an urban or suburban area. An intersection change to LOS E or F is considered to be an unacceptable operating condition that warrants mitigation. Table 4.15-2 describes the LOS standards and Section 4.15.2 describes the LOS standards for each jurisdiction (City of Lincoln, Placer County, and Caltrans).

Table 4.15-1
Intersection Level of Service Definitions

Level of Service (LOS)	Description	Signalized Intersections Avg. Delay	Unsignalized Intersections
A	Free Flow/Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red signal indication.	≤ 10.0 sec/ veh	≤ 10.0 sec/ veh
B	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.	10.1 to 20.0 sec/ veh	10.1 to 15.0 sec/ veh
C	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.	20.1 to 35.0 sec/ veh	15.1 to 25.0 sec/ veh
D	Approaching Unstable/Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.	35.1 to 55.0 sec/ veh	25.1 to 35.0 sec/ veh
E	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.	55.1 to 80.0 sec/ veh	35.1 to 50.0 sec/ veh
F	Forced Flow/Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.	>80.0 sec/ veh	>50.0 sec/ veh

Source: Transportation Research Board, 2010

Intersection Operations

Figure 4.15-2 shows the existing lane geometries, traffic control devices, a.m. and p.m. peak hour traffic volumes, and LOS at all study intersections. Table 4.15-2 lists the traffic control devices, the jurisdiction in which each intersection is located, the applicable LOS standard established by that jurisdiction, and the existing a.m. and p.m. peak hour LOS and average delay at each study area intersection.

As shown in Table 4.15-2, all study intersections currently operate at acceptable levels of service during the a.m. and p.m. peak hours based on the applicable standard, with the exception of the intersection of Nicolaus Road and Nelson Lane/ Aviation Boulevard, which operates at LOS D during the p.m. peak hour. The intersection of Lincoln Boulevard and First Street operates at LOS D during the a.m. peak hour; however, intersections along Lincoln Boulevard between First Street and Seventh Street are excluded from the City's standard of maintaining LOS C (City of Lincoln 2008, Policy T-2.3).

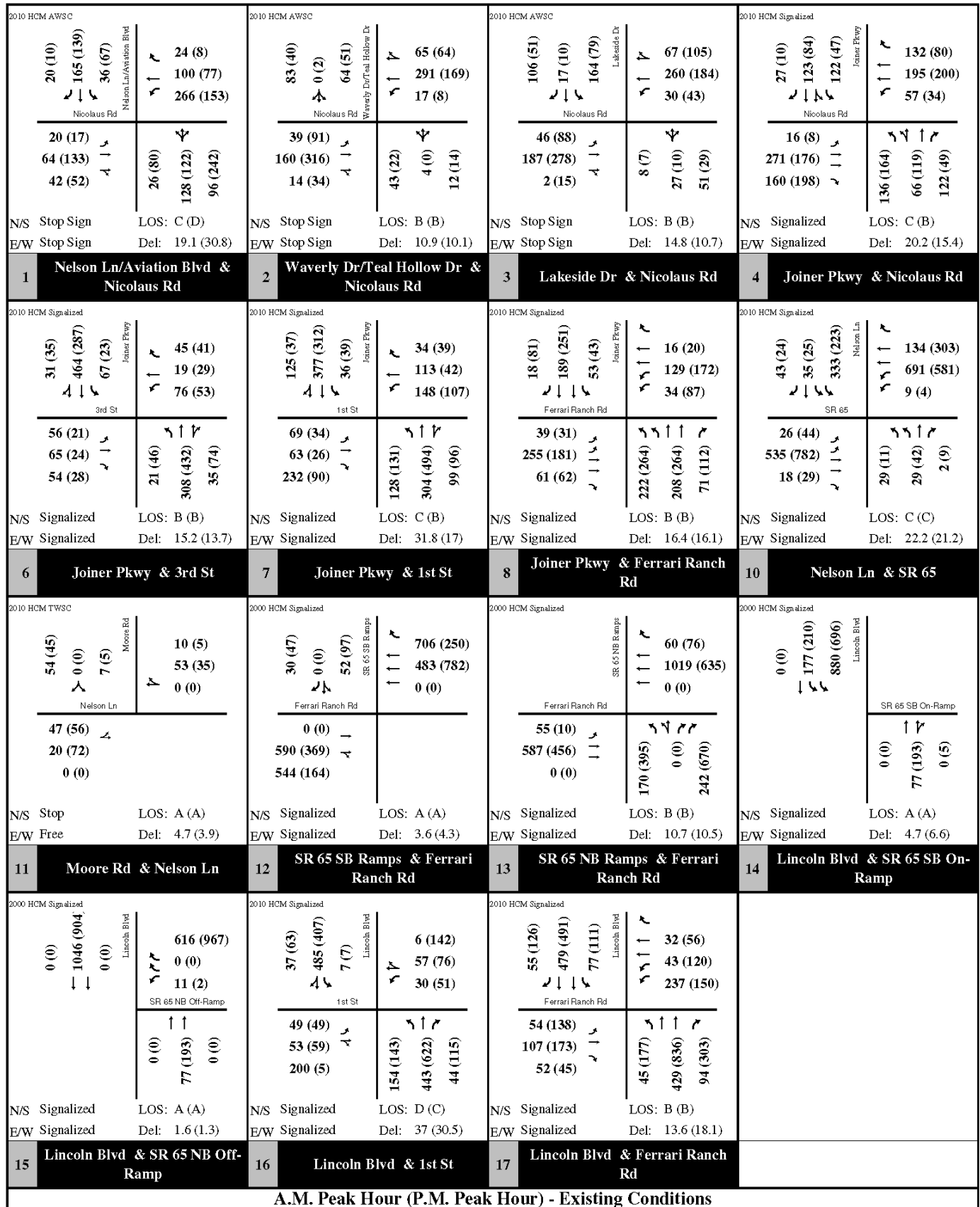
Table 4.15-2
Peak Hour Intersection Levels of Service - Existing Conditions

	Intersection	Control ¹	Jurisdiction (LOS Standard)	AM Peak Hour ²		PM Peak Hour ²	
				LOS	Avg Delay	LOS	Avg Delay
1	Nelson Lane / Aviation Boulevard and Nicolaus Road	AWSC	Lincoln (C)	C	19.1	D	30.8
2	Waverly Drive / Teal Hollow Drive and Nicolaus Road	AWSC	Lincoln (C)	B	10.9	B	10.1
3	Lakeside Drive and Nicolaus Road	AWSC	Lincoln (C)	B	14.8	B	10.7
4	Joiner Parkway and Nicolaus Road	Signal	Lincoln (C)	C	20.2	B	15.4
6	Joiner Parkway and Third Street	Signal	Lincoln (C)	B	15.2	B	13.7
7	Joiner Parkway and First Street	Signal	Lincoln (C)	C	31.8	B	17.0
8	Joiner Parkway and Ferrari Ranch Road	Signal	Lincoln (C)	B	16.4	B	16.1
10	Nelson Lane and SR 65	Signal	Caltrans (D)	C	22.2	C	21.2
11	Moore Road and Nelson Lane	TWSC	Placer County (C)	A	4.7	A	3.9
12	SR 65 SB Ramps and Ferrari Ranch Road	Signal	Caltrans (D)	A	3.6	A	4.3
13	SR 65 NB Ramps and Ferrari Ranch Road	Signal	Caltrans (D)	B	10.7	B	10.5
14	Lincoln Boulevard and SR 65 SB On-Ramp	Signal	Caltrans (D)	A	4.7	A	6.6
15	Lincoln Boulevard and SR 65 NB Off-Ramp	Signal	Caltrans (D)	A	1.6	A	1.3
16	Lincoln Boulevard and First Street ³	Signal	Lincoln ³	D	37.0	C	30.5
17	Lincoln Boulevard and Ferrari Ranch Road	Signal	Lincoln (C)	B	13.6	B	18.1

Notes:

1. AWSC = all way stop controlled; TWSC = two-way stop controlled
2. **Bold** Intersections do not meet current LOS Policy.
3. The intersection of Lincoln Boulevard / First Street is exempt from the City's LOS C standard

Source: DKS 2015.



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Residential Roadway Operations

The City typically evaluates LOS based on peak hour intersection operations and does not establish quantitative performance criteria for roadway segments. However, the proposed project would be located along the extension of existing residential streets. As such, the daily volume increases that would take place on these local residential roadways is presented for information below. Since the City of Lincoln does not have a LOS policy for roadway segments, the volume ranges listed are based on Sacramento County's Traffic Impact Guidelines.

Table 4.15-3
Level of Service Definitions on Residential Roadway Segments

Facility Type	Average Daily Traffic Volume Threshold				
	LOS A	LOS B	LOS C	LOS D	LOS E
Two-Lane Local	600	1,200	2,000	3,000	4,500
Two-Lane Collector With Frontage	1,600	3,200	4,800	6,400	8,000
Two-Lane Collector Without Frontage	6,000	7,000	8,000	9,000	10,000

Source: DKS 2015.

Table 4.15-4 shows the existing volumes and resultant LOS for each of the five study area residential roadway segments. As shown in Table 4.15-4, First Street (west of Joiner Parkway) and Third Street (also west of Joiner Parkway) both operate below LOS C under existing conditions.

Table 4.15-4
Daily Roadway Volumes and Level of Service - Existing Conditions

Roadway	Segment	Roadway Type	Existing Conditions	
			ADT	LOS
Existing Roadways				
First Street	West of Chambers	Two-Lane Local Residential	1,500	C
	West of Joiner	Two-Lane Local Residential	4,300	E
Third Street	West of Chambers	Two-Lane Local Residential	800	B
	West of Joiner	Two-Lane Local Residential	2,000	D
Fifth Street	West of Joiner	Two-Lane Local Residential	1,600	C

Note: The City of Lincoln does not have a daily segment LOS policy. For informational purposes.

Source: DKS 2015.

Freeway Operations

The freeway segment analysis is based on the methodology described in the Highway Capacity Manual (HCM) (TRB 2010) using Highway Capacity Software (HCS) software. The performance measure preferred by Caltrans to calculate LOS is density as expressed in terms of passenger cars per mile per lane. Table 4.15-5 illustrates the freeway segment LOS descriptions for each density range utilized for this analysis.

Table 4.15-5
Freeway Mainline LOS Thresholds

Level of Service	Description	Density Range (pc/mi/ln) ¹
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow. Demand exceeds capacity.	>45.0

Source: Transportation Research Board 2010.

Table 4.15-6 shows the existing density and corresponding LOS value for the study area freeway segments and off-ramps. As shown in Table 4.15-6, all study area freeway segments and off-ramps operate at LOS D or better during a.m. and p.m. peak hours.

Table 4.15-6
SR 65 Freeway Peak Hour Level of Service - Existing Conditions

Segment		Type	AM Peak		PM Peak	
			Density	LOS	Density	LOS
Northbound	Sunset On to Twelve Bridges Off-Ramp	Segment	15.7	B	25.3	C
	Twelve Bridges Off-Ramp	Off-Ramp	20.2	C	30.7	D
	Twelve Bridges Off to On-Ramp	Segment	12.4	B	20.7	C
	Twelve Bridges On to Lincoln Off-Ramp	Weave	12.4	B	20.4	C
	Lincoln to Ferrari Ranch Off-Ramp	Segment	7	A	10.3	A
	Ferrari Ranch Off-Ramp	Off-Ramp	4.8	A	10.9	B
	Ferrari Ranch Off to On-Ramp	Segment	6.6	A	6.6	A
	Ferrari Ranch On-Ramp	On-Ramp	9.4	A	9.2	A
	Ferrari Ranch On to Nelson	Segment	7.7	A	7.3	A
Southbound	Sunset On to Twelve Bridges Off-Ramp	Segment	7.5	A	8.8	A
	Twelve Bridges Off-Ramp	Off-Ramp	11.3	B	12.7	B
	Twelve Bridges Off to On-Ramp	Segment	6.8	A	7.5	A
	Twelve Bridges On to Lincoln Off-Ramp	Weave	9.3	A	5.9	A
	Lincoln to Ferrari Ranch Off-Ramp	Segment	14	B	7.7	A
	Ferrari Ranch Off-Ramp	Off-Ramp	17.6	B	11.1	B
	Ferrari Ranch Off to On-Ramp	Segment	21.7	C	13.7	B
	Ferrari Ranch On-Ramp	On-Ramp	20.8	C	14.7	B

Table 4.15-6
SR 65 Freeway Peak Hour Level of Service - Existing Conditions

Segment		Type	AM Peak		PM Peak	
	Ferrari Ranch On to Nelson	Segment	29.7	D	21.1	C

Note: Calculated using HCS 2010 (McTrans/ University of Florida)

Source: DKS 2015.

4.15.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal policies relating to transportation that are directly applicable to the project. Transit services must comply with federal regulations such as the Americans with Disabilities Act (ADA) and Title VI.

State

California Department of Transportation

As determined by the California Department of Transportation (Caltrans), the LOS for operating State highway facilities is based upon measures of effectiveness (MOEs). These MOEs describe the measures best suited for analyzing State highway facilities (i.e., freeway segments, signalized intersections, on- or off-ramps, etc.). Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities. However, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained. (Caltrans 2002)

State Route 65 Corridor System Management Plan

In June 2009, Caltrans approved a Corridor System Management Plan (CSMP) for SR 65 from Interstate 80 in Roseville to SR 70 in Yuba County, south of Marysville. The CSMP replaces the previous Transportation Concept Report and is a long-range comprehensive transportation planning document for SR 65 that includes system management strategies and performance evaluation measures to track the effectiveness of strategies and projects.

The CSMP documents the current LOS on SR 65 and the future LOS when considering feasible long-term projects. The CSMP also identifies a “concept LOS,” or the minimum level or quality of operations acceptable, for SR 65 within the 20-year planning period. A deficiency or need for improvement is triggered when the actual LOS falls below the concept LOS. Within the study area, the SR 65 CSMP identifies the 20-year concept LOS as:

- LOS E from Blue Oaks Boulevard to Gladding Road
- LOS D from Gladding Road to Riosa Road
- LOS E from Riosa Road to the Yuba County Line

At the time of the preparation of the SR 65 CSMP, the SR 65 Lincoln Bypass through the study area was not yet open to traffic. The SR 65 Lincoln Bypass opened to traffic in 2012, and SR 65 no longer travels through downtown Lincoln. The segment from Gladding Road to Riosa Road now exists as part of the Lincoln Bypass, roughly corresponding with Wise Road to Riosa Road. Therefore, the LOS D concept was applied for Gladding Road to Riosa Road in the CSMP to the Wise Road to Riosa Road segment of SR 65 (i.e., the Lincoln Bypass). Since SR 65 is a Caltrans facility, the CSMP concept LOS was also applied to study area highway and freeway segments, ramps. At ramps and intersections, the City of Lincoln's LOS policy for Caltrans facilities was applied, as described in the Local regulatory setting section below.

SB-743 (Status and Application to this Analysis)

In September 2013, Governor Brown signed Senate Bill 743, which made significant changes to how transportation impacts are to be assessed under CEQA. SB 743 directs the Governor's Office of Planning and Research to develop a new metric and approach that replaces LOS analysis and suggests vehicle miles traveled as a metric. SB 743 also creates a new exemption for certain projects that are consistent with the regional Sustainable Communities Strategy and, in some circumstances, eliminates the need to evaluate aesthetic and parking impacts of a project. The requirement to replace LOS does not go into effect until the new CEQA Guidelines have been certified.

The Governor's Office of Planning and Research has released Draft CEQA Guidelines; however, at the time this analysis was completed the Guidelines have not been finalized or adopted. It is anticipated that the revisions to the CEQA Guidelines will be finalized in 2017. According to the most recent Draft CEQA Guidelines released by the Governor's Office of Planning and Research, lead agencies would have a grace period of two years to update and adopt new thresholds once the new Guidelines have been adopted.

Local

Congestion Management Plan

In June 1990, the voters of California approved Proposition 111, which increased the tax on gasoline to fund improvements on congested roadways. This proposition amended Government Code Section 65089 to require counties containing urbanized areas with populations of 50,000 or more, such as Placer County, to designate an agency as a Congestion Management Agency (CMA); however, the CMA designation has since been made optional. The Placer County Transportation Planning Agency

(PCTPA) was designated the CMA for Placer County in 1991. Under SB 437, CMA's have the option as to whether to continue their Congestion Management Program (CMP). PCTPA maintains this effort through an alternative transportation outreach effort in an effort to provide trip reduction programs to those who reside and work in Placer County.

PCTPA and the City of Roseville implement the CMP for Placer County. Their efforts are closely coordinated with the Regional Rideshare program and Spare-the-Air. The CMP provides marketing, seasonal incentive, educational and outreach efforts to the public and employers throughout Placer County about the benefits of using alternative modes of transportation, with the goal of reducing drive-alone auto commute trips and VMT. The CMP also offers an emergency guaranteed ride home program for employees, and includes educating school age children about the benefits of using alternative transportation. PCTPA also carries out a transit marketing program geared specifically to raise awareness of public transit options in Placer County. (PCPTA 2010)

South Placer Regional Transportation Authority Fee Program

Member agencies of the South Placer Regional Transportation Authority (SPRTA) include Placer County, the City of Lincoln, the City of Roseville, and the City of Rocklin. SPRTA was formed in 2002 for the purpose of implementing a Regional Transportation and Air Quality Mitigation Fee to fund specified regional transportation projects. The SPRTA fee program area is divided into 10 fee districts, with fees calculated on a nexus-basis via the South Placer traffic model. Fees are assessed on all development, including residential, commercial, and industrial. The latest fee update was adopted July 1, 2017, and includes the future widening of SR 65.

County of Placer General Plan

The General Plan includes transportation policies that address automobile, bicycle, pedestrian, and transit modes. For County of Placer intersections, LOS A-C is considered acceptable, while LOS D-F is considered unacceptable per Placer County General Plan policy 3.A.7.

City of Lincoln General Plan

The City of Lincoln General Plan includes transportation policies that address automobile, bicycle, pedestrian, and transit modes. These policies are identified in Table 4.10-2 of Section 4.10, Land Use.

Relevant general plan policies were considered in the establishment of thresholds of significance (Section 4.15.3). For City of Lincoln intersections, LOS A-C is considered acceptable, while LOS D-F is considered unacceptable per Lincoln General Plan policy T-2.3. This policy also states that intersections along Lincoln Boulevard between First Street and Seventh Street are excluded from

the LOS C standard. General Plan policy T-2.4 states that the City shall coordinate with Caltrans with the goal of maintaining a minimum of LOS D conditions for SR 65.

City of Lincoln Public Facilities Impact Fee Program

The City has adopted a Public Facilities Impact Fee Program (PFFP) which was established to provide a nexus between projected new development in the City and new capital facilities required to serve new development through build-out of the General Plan (Municipal Code Chapter 17.62: Public Facilities Impact Fees). The program serves as a basis for requiring development impact fees in accordance with the provisions of Government Code Section 66000 et seq. The City has established the PFFP to address the capital facilities required in a wide range of service areas, including wastewater, drainage, water, reclaimed water, transportation, police, fire, library, administration, solid waste, parks, and recreational facilities. As part of the program, the City maintains a master list of capital improvements in each category that are needed to service new development. Improvements are funded by the collection of fees from new development based upon an equivalent dwelling unit basis which represents each project's share in the capital facilities needed to serve new development. In some instances projects may be required to build one of the improvements from the Master Improvement List, in which case they are able to receive credits against the fee they would have otherwise been required to pay. The General Plan Public Facilities Element (PFE) contains the list of specific projects to be paid for by the fee program (City of Lincoln 2008).

4.15.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to traffic and circulation are based on Appendix G of the CEQA Guidelines and established standards and policies for the City of Lincoln, the County of Placer, and Caltrans. According to Appendix G of the CEQA Guidelines and these jurisdiction standards, a significant impact related to traffic and circulation would occur if the project would:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance or the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Table 4.15-7 below outlines the standards related to this threshold.
2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

4. Substantially increase hazards due to a design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment).
5. Result in inadequate emergency access.
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Table 4.15-7
Standards of Significance

Location	Jurisdiction	Standard	Impact
<i>Intersections</i>			
All except as noted below	City of Lincoln and County of Placer	LOS C	<ul style="list-style-type: none"> • LOS D - F or • if the intersection is already operating below the standard and the project increases delay by 5 seconds or more¹
Lincoln Boulevard between First Street and Seventh Street	City of Lincoln	N/A	Excluded from the LOS C standard, and will operate at a lower LOS.
SR-65 in City of Lincoln	Caltrans	LOS D	<ul style="list-style-type: none"> • LOS E - F or • if the intersection is already operating below the standard and the project increases delay by 1 second or more
<i>Freeway Segments</i>			
SR 65 from Blue Oaks Boulevard to Wise Road	Caltrans	LOS E	<ul style="list-style-type: none"> • LOS F or • if the intersection is already operating below the standard and the project increases the traffic volume
SR 65 between Wise Road and Riosa Road	Caltrans	LOS D	<ul style="list-style-type: none"> • LOS E - F or • if the intersection is already operating below the standard and the project increases the traffic volume
<i>Bicycle and Pedestrian Facilities</i>			
All study area locations	City of Lincoln, County of Placer and Caltrans	Does not interfere with planned facilities or create inconsistencies with adopted plans, guidelines, policies, or standards.	<ul style="list-style-type: none"> • Disrupt or interfere with existing or planned bicycle and pedestrian facilities • Create inconsistencies with adopted pedestrian or bicycle system plans, guidelines, policies, or standards.
<i>Transit Facilities</i>			
All study area locations	City of Lincoln and County of Placer	Does not interfere with planned facilities or create a demand above capacity	<ul style="list-style-type: none"> • Create a demand for mass transit services above the capacity which is provided or planned or • Interfere with existing or planned transit facilities.

Notes:

1. The "five second" threshold is a standard utilized by numerous jurisdictions in the region. This standard is being used in place of the increase in V/C ratio of 0.05 or more that was identified in the City General Plan. The City General Plan LOS analysis relies on the Circular 212 methodology, which was based on V/C ratio of critical vehicular movements. Like most other jurisdictions in the region, the City is now employing the HCM 2010 methodology, which is based on intersection delay in seconds, instead of V/C ratio.

Source: DKS Associates 2015.

4.15.4 Impacts Analysis

4.15.4.1 Methods of Analysis

The analysis uses the Placer County Travel Demand Model, which was originally developed in 1993 and has been updated and revalidated several times, with the most recent update taking place in 2008. The model estimates roadway volumes based on land uses. Its inputs are estimates of development (i.e., the number of single-family and multi-family dwelling units, and the amount of square footage of various categories of non-residential uses) and detailed information on the roadway system. The model covers the portions of Placer County west of Colfax, as well as the entire Sacramento region, including Sacramento, Yolo, and south Sutter counties. For areas outside Placer County, the model uses the trip generation estimates from the regional model maintained by the Sacramento Area Council of Governments (SACOG). The Placer County model is consistent with the trip distribution and mode choice estimates from SACOG's regional model for the entire region.

Section 4.15.1.2 describes the LOS methodology used to analyze vehicle operations. The LOS analysis was performed for a.m. and p.m. peak hour traffic conditions in the study area for four scenarios, existing conditions with and without the project and cumulative conditions with and without the project as described in the introduction to Section 4.15.

Project-Only Traffic

Trip Generation. To evaluate the potential impact of the proposed project on local traffic conditions, it is necessary to estimate the number of new vehicle trips expected to be generated by the proposed project, the distribution of these additional trips within the study area, and the assignment of the anticipated project-generated trips to the study area intersections and street segments. The estimated trips for the proposed project were calculated using the trip generation rates included in the County's travel demand model. Table 4.15-8 shows the estimated trip generation for buildout of the proposed project.

**Table 4.15-8
Project Trip Generation**

Land Use	Daily Trip Ends Per Unit	Proposed Units Project Buildout	Proposed Trip Generation Project Buildout
Single Family	9 per DU	419	3,771
Commercial	35 Per KSF	522.6	18,291
Office	17.7 Per KSF	348.4	6,667
Industrial (self-storage)	7.6 Per KSF	100.0	760
Hotel	5.6 per Room	100	560
Total Daily Project Trip Ends			29,549

**Table 4.15-8
Project Trip Generation**

Land Use	Daily Trip Ends Per Unit	Proposed Units Project Buildout	Proposed Trip Generation Project Buildout
Approximate Percentage Internal Trips			13.5%
Approximate Resultant Internal-External Trips			25,565

Note: Based on 60% Commercial and 40% Office, 0.35 FAR for Commercial and Office.

Source: DKS Associates 2015.

Table 4.15-8 shows that the proposed project would generate approximately 30,000 daily trips. These numbers represent one trip end for each direction of a two-way trip. A portion of the generated trips (approximately 13.5% based on model results) would remain within the boundaries of the project site due to the mixed use nature of the land uses. Because the project consists of residential neighborhoods to the east and commercial development to the west, it is anticipated that there would be vehicle trips that travel back and forth between the residential and commercial portions of the site.

The proposed project includes a multi-family option. This option would allow five acres of commercial land north of Markham Ravine to be developed as multifamily residential. The resulting trip generation is shown in Table 4.15-9. The overall trip generation of the multifamily option is less than under the proposed project in Table 4.15-8. Therefore, this EIR relies on Table 4.15-8 for trip generation (without the multifamily option) to assess the potential impacts under the more intense of the two potential land use scenarios allowed under the specific plan.

**Table 4.15-9
Multifamily Option – Project Trip Generation**

Land Use	Daily Trip Ends Per Unit	Proposed Units Project Buildout	Proposed Trip Generation Project Buildout
Single Family	9 per DU	419	3,771
Multifamily	6.5 per DU	166	1,079
Commercial	35 Per KSF	446.4	15,623
Office	17.7 Per KSF	348.4	6,667
Industrial (self-storage)	7.6 Per KSF	100.0	760
Hotel	5.6 per Room	100	560
Total Daily Project Trip Ends			28,460
Approximate Percentage Internal Trips			13.5%
Approximate Resultant Internal-External Trips			24,618

Note: Based on 60% Commercial and 40% Office, 0.35 FAR for Commercial and Office.

Source: DKS Associates 2017.

Trip Distribution. Trip distribution is the process of assigning the trips by direction to and from a project site. Trip distribution was estimated by conducting a “select zone” analysis in the

County model, which isolates all trips entering or exiting a selected set of traffic analysis zones and traces those trips on the travel demand model roadway network. Based on this process, project trips are anticipated to be distributed as follows:

- Nicolaus Road west: 10%
- SR 65 west and north: 6%
- Nelson Lane south of SR 65: 19%
- SR 65 east and south: 19%
- First Street east: 5%
- Third Street east: 4%
- Nicolaus Road east: 10%
- Joiner Parkway north: 1%
- Lakeside Drive north: 1%
- Teal Hollow Drive north: 1%
- Aviation Boulevard north: 5%

Background Growth and Cumulative Projects

To evaluate the potential impact of the proposed project on local traffic conditions, it is necessary to develop a forecast of future traffic volumes in the study area under conditions without the proposed project. This provides a basis against which to measure the potential significant impacts of the proposed project under future conditions. Future traffic conditions are calculated and characterized by adding ambient traffic growth due to demographic changes and growth as well as traffic from anticipated future projects that are approved, under construction, or pending approval.

The analysis uses the Placer County Travel Demand Model (model), which accounts for ambient growth and, to the degree that they are included, cumulative projects. For the purposes of this analysis, the cumulative scenario developed for the adjacent Lincoln Village 5 Specific Plan was used.

The cumulative version of the 2008 model has a horizon year of 2025. Since the recent economic recession slowed the pace of land development in Placer County seen prior to 2008, it is unlikely that the land use development assumed in the model is likely to occur within the next ten years. For example, the SACOG's 2035 Metropolitan Transportation Plan and Sustainable Communities Strategy (MTP/SCS) forecasts a dramatically reduced amount of growth in South Placer County. In fact, the growth anticipated for the City of Lincoln by 2035 in the SACOG MTP/SCS is only about one-third of the growth included in the 2025 model.

To account for this reduction in growth while also including all reasonably foreseeable land development projects in the study area, land use adjustments were made to the model. In addition to land development adjustments, several adjustments were made to the roadway network based on circulation improvements associated with new development as well as the SACOG MTP/SCS financially constrained transportation project list. (See Appendix G for details regarding these adjustments.)

In addition to the assumptions made for the Lincoln Village 5 Specific Plan traffic analysis, full development of the Independence at Lincoln project was also assumed. This project is located to the north of the project site. This assumption includes a direct connection between the proposed project and the Independence at Lincoln project site via a new collector roadway with access via the roundabout within the project site. Two additional roadway improvements were also assumed: signalization of the Nicolaus Road / Nelson Lane intersection and the Nicolaus Road / Lakeside Drive intersection.

4.15.4.2 Analysis

Impact 4.15-1: The project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

As specified in Section 4.15.3, the City, County, and Caltrans have LOS policies, which are used as the basis for what is considered a significant impact to the performance of the circulation system. Measures of effectiveness for mass transit and non-motorized modes of travel are generally established in general plans and/or in plans that are specifically designed to help improve the pedestrian, bicycle, and/or mass transit system. As such, potential effects to these modes of travel are addressed under the last threshold question, which pertains to policies, programs, and plans for pedestrian, bicycle, and mass transit circulation.

Operation

Existing Plus Project Conditions

While it is unlikely that a project of this magnitude would be fully developed instantaneously, this scenario assumes that the entire project is developed and no other development or roadway improvements take place (i.e., existing traffic conditions plus project buildout conditions).

Intersection Operation Impacts. Figure 4.15-3 and Figure 4.15-4 show existing plus project peak hour traffic volumes at study area intersections during the a.m. and p.m. peak hour,

respectively. Table 4.15-10 shows the existing plus project LOS at study area intersections. For the purposes of this analysis, it is assumed that intersection geometrics, traffic controls, and signal timing of study area intersections would remain the same under existing without project and existing plus project conditions, except in the case of the new roundabout to be installed as part of the project. No signalization is assumed at the proposed roundabout.

Table 4.15-10 shows that one intersection would be significantly impacted by the proposed project during both the a.m. and p.m. peak hours under existing plus project conditions.

- Nicolaus Road and Nelson Lane/Aviation Boulevard. During the a.m. peak hour, LOS would degrade from C to E. During the p.m. peak hour, LOS would degrade from D to E.

Mitigation Measure TRA-1, discussed in Section 4.15.5, would reduce this potential impact.

Table 4.15-10
Peak Hour Intersection Levels of Service - Existing Conditions

Intersection		Control	Jurisdiction (LOS Standard)	Peak Hour	Existing Conditions		Existing Plus Project	
					Int LOS	Avg Delay	Int LOS	Avg Delay
1	Nelson Lane / Aviation Boulevard and Nicolaus Road	AWSC	Lincoln (C)	AM PM	C D	19.1 30.8	E E	43.9 39.1
2	Waverly Drive / Teal Hollow Drive and Nicolaus Road	AWSC	Lincoln (C)	AM PM	B B	10.9 10.1	B B	13.0 12.7
3	Lakeside Drive and Nicolaus Road	AWSC	Lincoln (C)	AM PM	B B	14.8 10.7	C B	16.5 12.2
4	Joiner Parkway and Nicolaus Road	Signal	Lincoln (C)	AM PM	C B	20.2 15.4	B B	19.5 15.5
6	Joiner Parkway and Third Street	Signal	Lincoln (C)	AM PM	B B	15.2 13.7	B B	14.8 13.5
7	Joiner Parkway and First Street	Signal	Lincoln (C)	AM PM	C B	31.8 17.0	C B	28.8 16.7
8	Joiner Parkway and Ferrari Ranch Road	Signal	Lincoln (C)	AM PM	B B	16.4 16.1	B B	16.8 17.0
10	Nelson Lane and SR 65	Signal	Caltrans (D)	AM PM	C C	22.2 21.2	C C	27.6 21.2
11	Moore Road and Nelson Lane	TWSC	Placer County (C)	AM PM	A A	4.7 3.9	A A	0.9 0.4
12	SR 65 SB Ramps and Ferrari Ranch Road	Signal	Caltrans (D)	AM PM	A A	3.6 4.3	A A	4.1 6.9
13	SR 65 NB Ramps and Ferrari Ranch Road	Signal	Caltrans (D)	AM PM	B B	10.7 10.5	B B	11.3 10.8

Table 4.15-10
Peak Hour Intersection Levels of Service - Existing Conditions

Intersection	Control	Jurisdiction (LOS Standard)	Peak Hour	Existing Conditions		Existing Plus Project	
				Int LOS	Avg Delay	Int LOS	Avg Delay
14 Lincoln Boulevard and SR 65 SB On-Ramp	Signal	Caltrans (D)	AM PM	A A	4.7 6.6	A A	4.8 6.4
15 Lincoln Boulevard and SR 65 NB Off-Ramp	Signal	Caltrans (D)	AM PM	A A	1.6 1.3	A A	1.6 1.3
16 Lincoln Boulevard and First Street ³	Signal	Lincoln ³	AM PM	D C	37.0 30.5	D C	37.0 30.5
17 Lincoln Boulevard and Ferrari Ranch Road	Signal	Lincoln (C)	AM PM	B B	13.6 18.1	B B	13.6 19.6
18 Project Roundabout	Roundabout	Lincoln (C)	AM PM	Does not exist		A A	4.7 4.5

Notes:

1. AWSC = all way stop controlled; TWSC = two-way stop controlled
2. **Bold** Intersections do not meet current LOS Policy. **Shaded** intersections represent significant impacts based on appropriate standard of significance
3. The intersection of Lincoln Boulevard / First Street is exempt from the City's LOS C standard

Source: DKS 2015.

Residential Roadway Operations. Table 4.15-10 shows the change in daily traffic volumes on residential roadways adjacent to the project site and within the project site itself. Although the City does not consider daily segment volumes or the LOS of roadway operations in its General Plan policies, roadway segment LOS is provided for information purposes due to close proximity of the project to local residential streets.

Table 4.15-11 shows that two local residential roadways currently exceed LOS C and would experience an increase in volume with the addition of the proposed project, while one additional roadway is currently at LOS C and would degrade to LOS D with the addition of the proposed project. These roadway segments are listed as follows:

- First Street west of Joiner Parkway: Existing LOS E, anticipated increase of 100 daily vehicles under the proposed project.
- Third Street west of Joiner Parkway: Existing LOS D, anticipated increase of 100 daily vehicles under the proposed project.
- First Street west of Chambers Drive: Existing LOS C, degrades to LOS D with anticipated increase of 600 daily vehicles under the proposed project.

Since roadway segment LOS is not a determinant of significant impacts based on the City policy, these numbers are presented for informational purposes only, not for impact analysis purposes.

Table 4.15-11
Daily Roadway Volumes and Level of Service - Existing Conditions

Roadway	Segment	Roadway Type	Existing Conditions		Existing Plus Project	
			ADT	LOS	ADT	LOS
Existing Roadways						
First Street	West of Chambers	Two-Lane Local Res	1,500	C	2,100	D
	West of Joiner	Two-Lane Local Res	4,300	E	4,400	E
Third Street	West of Chambers	Two-Lane Local Res	800	B	1,600	C
	West of Joiner	Two-Lane Local Res	2,000	D	2,100	D
Fifth Street	West of Joiner	Two-Lane Local Res	1,600	C	1,600	C
Nicolaus	West of Joiner	Four-Lane Arterial	8,700	A	9,300	A
	West of Waverly	Four-Lane Arterial	7,300	A	11,700	A
Roadways Added With Proposed Project						
Third Street	West of Current City Limit	Two-Lane Local Res	n/a		1,600	C
First Street	West of Current City Limit	Two-Lane Local Res	n/a		1,300	C

Note: The City of Lincoln does not have a daily segment LOS policy. For informational purposes.

Source: DKS 2015

Freeway Operation Impacts. Table 4.15-12 shows the existing and existing- plus-project traffic densities and resultant LOS for the a.m. and p.m. peak hour on study area freeway segments and off-ramps. There are no significant impacts based on changes in traffic density or LOS on SR 65 in the study area.

Table 4.15-12
Freeway Level of Service Existing Conditions

Segment		Type	Existing		Existing Plus Project	
			Density	LOS	Density	LOS
Northbound	Sunset On to Twelve Bridges Off-Ramp	Segment	15.7	B	17.4	B
	Twelve Bridges Off-Ramp	Off-Ramp	20.2	C	22.1	C
	Twelve Bridges Off to On-Ramp	Segment	12.4	B	14.2	B
	Twelve Bridges On to Lincoln Off-Ramp	Weave	12.4	B	14.1	B
	Lincoln to Ferrari Ranch Off-Ramp	Segment	7	A	8.4	A
	Ferrari Ranch Off-Ramp	Off-Ramp	4.8	A	5.8	A
	Ferrari Ranch Off to On-Ramp	Segment	6.6	A	8.9	A
	Ferrari Ranch On-Ramp	On-Ramp	9.4	A	12.7	B
	Ferrari Ranch On to Nelson	Segment	7.7	A	11.1	B
Southbound	Sunset On to Twelve Bridges Off-Ramp	Segment	7.5	A	8.0	A
	Twelve Bridges Off-Ramp	Off-Ramp	11.3	B	12.5	B
	Twelve Bridges Off to On-Ramp	Segment	6.8	A	7.0	A
	Twelve Bridges On to Lincoln Off-Ramp	Weave	9.3	A	9.1	A

Table 4.15-12
Freeway Level of Service Existing Conditions

	Segment	Type	Existing		Existing Plus Project	
			Density	LOS	Density	LOS
Northbound	Lincoln to Ferrari Ranch Off-Ramp	Segment	14	B	13.4	B
	Ferrari Ranch Off-Ramp	Off-Ramp	17.6	B	17.0	B
	Ferrari Ranch Off to On-Ramp	Segment	21.7	C	21.6	C
	Ferrari Ranch On-Ramp	On-Ramp	20.8	C	20.4	C
	Ferrari Ranch On to Nelson	Segment	29.7	D	29.6	D
	Sunset On to Twelve Bridges Off-Ramp	Segment	25.3	C	25.1	C
	Twelve Bridges Off-Ramp	Off-Ramp	30.7	D	30.4	D
	Twelve Bridges Off to On-Ramp	Segment	20.7	C	20.6	C
	Twelve Bridges On to Lincoln Off-Ramp	Weave	20.4	C	20.0	C
	Lincoln to Ferrari Ranch Off-Ramp	Segment	10.3	A	10.3	A
Southbound	Ferrari Ranch Off-Ramp	Off-Ramp	10.9	B	10.8	B
	Ferrari Ranch Off to On-Ramp	Segment	6.6	A	6.9	A
	Ferrari Ranch On-Ramp	On-Ramp	9.2	A	10.2	B
	Ferrari Ranch On to Nelson	Segment	7.3	A	8.3	A
	Sunset On to Twelve Bridges Off-Ramp	Segment	8.8	A	12.2	B
	Twelve Bridges Off-Ramp	Off-Ramp	12.7	B	16.5	B
	Twelve Bridges Off to On-Ramp	Segment	7.5	A	9.1	A
	Twelve Bridges On to Lincoln Off-Ramp	Weave	5.9	A	6.4	A
	Lincoln to Ferrari Ranch Off-Ramp	Segment	7.7	A	8.3	A
	Ferrari Ranch Off-Ramp	Off-Ramp	11.1	B	12.6	B
	Ferrari Ranch Off to On-Ramp	Segment	13.7	B	14.8	B
	Ferrari Ranch On-Ramp	On-Ramp	14.7	B	20.6	C
	Ferrari Ranch On to Nelson	Segment	21.1	C	21.9	C

Notes:

Based on Freeway Performance Measurement System data.

Density given as passenger cars per mile per lane.

Bold locations do not meet current LOS Policy, Shaded indicates LOS Impact

Cumulative Conditions

Based on the cumulative assumptions summarized above and described further in Appendix G cumulative without project a.m. and p.m. peak hour intersection turning movement volumes are displayed in Figure 4.15-5. Cumulative plus project a.m. and p.m. peak hour turning movement volumes are displayed in Figure 4.15-6 and Figure 4.15-7, respectively. Cumulative without project and cumulative plus project LOS results for study area intersections are displayed in Table 4.15-13.

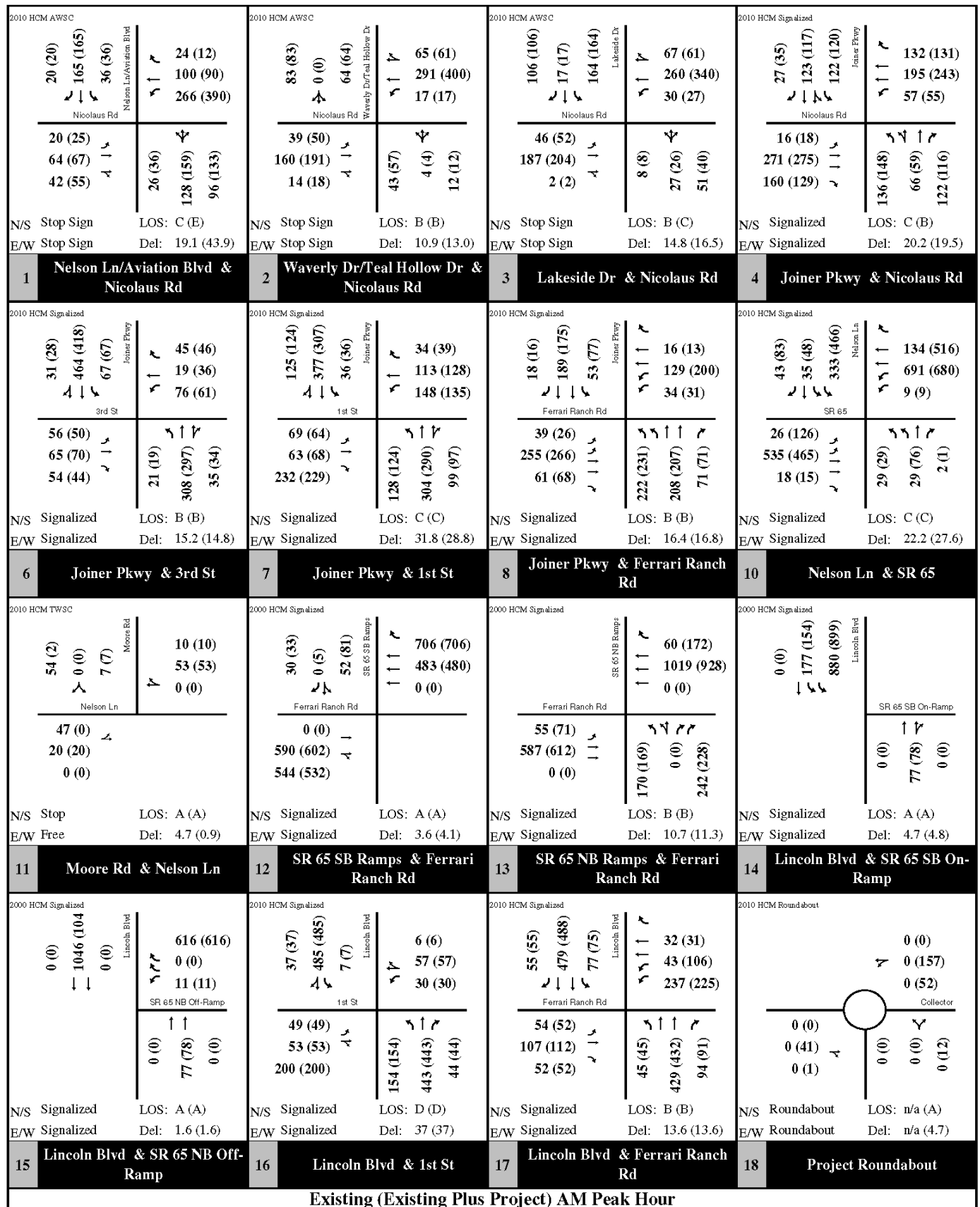
Table 4.15-13
Peak Hour Intersection Levels of Service - Cumulative Conditions

Intersection	Control	Jurisdiction (LOS Standard)	Peak Hour	Existing Conditions		Existing Plus Project	
				Int LOS	Avg Delay	Int LOS	Avg Delay
1 Nelson Lane / Aviation Boulevard and Nicolaus Road	Signal	Lincoln (C)	AM PM	E F	74.1 119.9	E F	73.6 108.2
2 Waverly Drive / Teal Hollow Drive and Nicolaus Road	AWSC	Lincoln (C)	AM PM	E F	48.6 54.3	E F	47.7 56.1
3 Lakeside Drive and Nicolaus Road	Signal	Lincoln (C)	AM PM	A A	7.7 6.1	A A	8.1 6.4
4 Joiner Parkway and Nicolaus Road	Signal	Lincoln (C)	AM PM	C F	26.1 98.3	C F	26.5 113.6
6 Joiner Parkway and Third Street	Signal	Lincoln (C)	AM PM	B B	17.6 16.6	B C	17.2 20.5
7 Joiner Parkway and First Street	Signal	Lincoln (C)	AM PM	C C	34.3 30.0	C D	34.8 38.4
8 Joiner Parkway and Ferrari Ranch Road	Signal	Lincoln (C)	AM PM	D F	37.8 134.4	D F	39.9 129.8
10 Nelson Lane and SR 65	Signal	Caltrans (D)	AM PM	F F	222.8 288.6	F F	252.0 297.7
11 Moore Road and Nelson Lane	TWSC	Placer County (C)	AM PM	A A	1.5 7.6	A B	1.5 10.1
12 SR 65 SB Ramps and Ferrari Ranch Road	Signal	Caltrans (D)	AM PM	F E	87.2 59.6	F D	93.2 43.3
13 SR 65 NB Ramps and Ferrari Ranch Road	Signal	Caltrans (D)	AM PM	C E	23.9 70.2	C E	25.2 73.3
14 Lincoln Boulevard and SR 65 SB On-Ramp	Signal	Caltrans (D)	AM PM	A A	4.6 8.7	A A	4.7 8.1
15 Lincoln Boulevard and SR 65 NB Off-Ramp	Signal	Caltrans (D)	AM PM	A A	2.9 2.0	A A	2.9 2.0
16 Lincoln Boulevard and First Street ³	Signal	Lincoln ³	AM PM	C C	29.8 21.6	C C	29.6 21.6
17 Lincoln Boulevard and Ferrari Ranch Road	Signal	Lincoln (C)	AM PM	C E	22.4 62.1	C E	22.6 60.6
18 Project Roundabout	Roundabout	Lincoln (C)	AM PM	Does not exist		A A	7.0 9.2

Notes:

1. AWSC = all way stop controlled; TWSC = two-way stop controlled
2. **Bold** Intersections do not meet current LOS Policy. **Shaded** intersections represent significant impacts based on appropriate standard of significance
3. The intersection of Lincoln Boulevard / First Street is exempt from the City's LOS C standard

Source: DKS 2015.

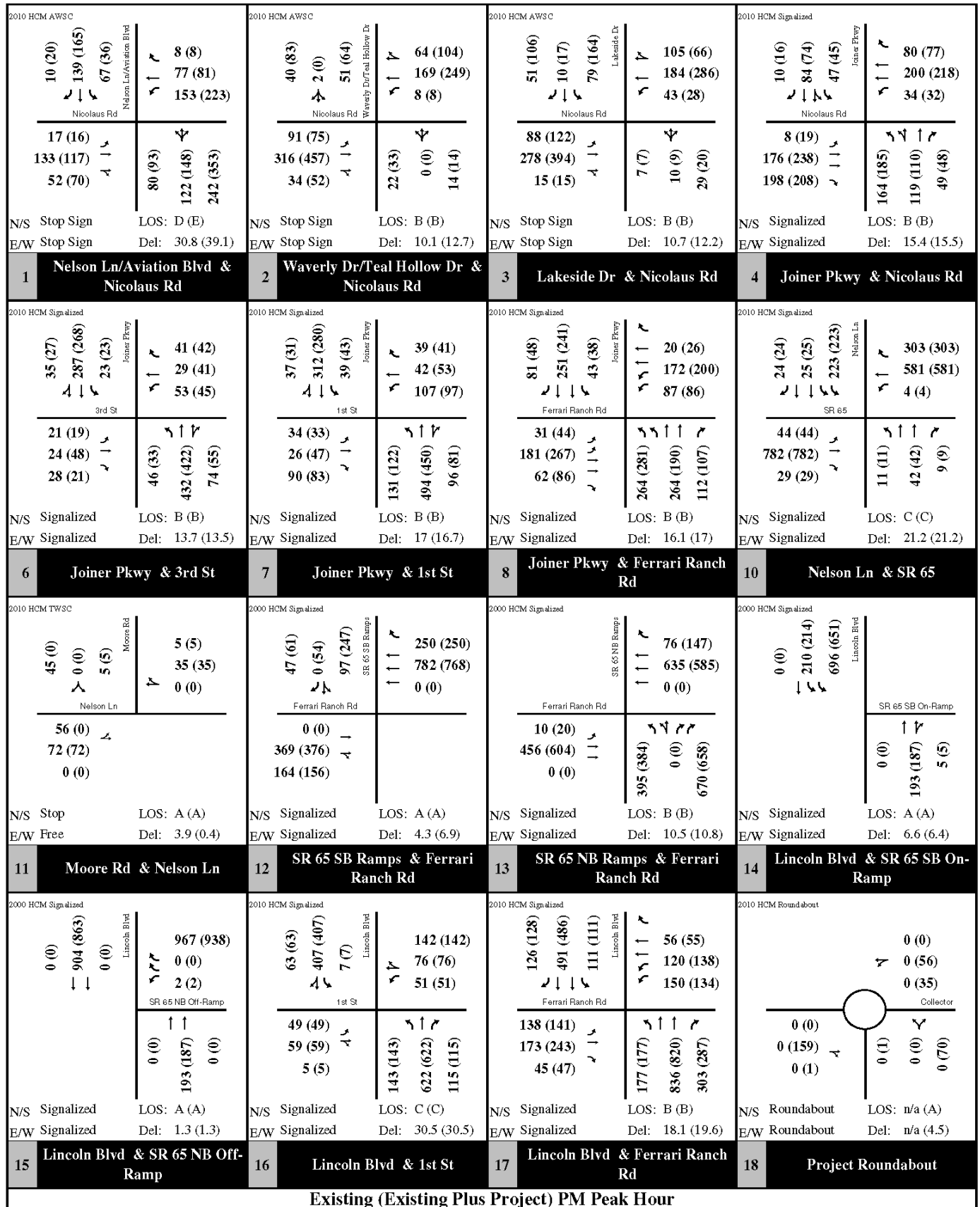


SOURCE: DKS (2017)

FIGURE 4.15-3

Existing Plus Project A.M. Peak Hour Volumes

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SOURCE: DKS (2017)

FIGURE 4.15-4

Existing Plus Project P.M. Peak Hour Volumes

SUD-B Northeast Quadrant Specific Plan DEIR

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<p>2010 HCM Signalized</p> <p>142 (369) ↓ ↓ ↓ Nicolaus Rd</p> <p>375 (214) 324 (922) 226 (530) ↓ ↓ ↓</p> <p>Nelson Ln/Aviation Blvd</p> <p>209 (51) 719 (431) 504 (281) ↑ ↑ ↑</p> <p>543 (398) 487 (426) 205 (492) ↑ ↑ ↑</p> <p>N/S Signalized LOS: E (F) E/W Signalized Del: 74.1 (119.9)</p> <p>1 Nelson Ln/Aviation Blvd & Nicolaus Rd</p>	<p>2010 HCM AWSC</p> <p>78 (75) 1 (4) 117 (122) ↑ ↓ ↓ Nicolaus Rd</p> <p>84 (116) 486 (1396) 41 (103) ↓ ↓ ↓</p> <p>Waverly Dr/Teal Hollow Dr</p> <p>92 (122) 1145 (622) 28 (40) ↑ ↓ ↓</p> <p>105 (61) 5 (2) 47 (26) ↑ ↓ ↓</p> <p>N/S Stop Sign LOS: E (F) E/W Stop Sign Del: 48.6 (54.3)</p> <p>2 Waverly Dr/Teal Hollow Dr & Nicolaus Rd</p>	<p>2010 HCM Signalized</p> <p>148 (77) 18 (11) 123 (78) ↓ ↓ ↓ Nicolaus Rd</p> <p>59 (131) 588 (1397) 2 (15) ↓ ↓ ↓</p> <p>Lakeside Dr</p> <p>109 (59) 1109 (700) 59 (44) ↑ ↓ ↓</p> <p>8 (7) 28 (11) 53 (54) ↑ ↓ ↓</p> <p>N/S Signalized LOS: A (A) E/W Signalized Del: 7.7 (6.1)</p> <p>3 Lakeside Dr & Nicolaus Rd</p>	<p>2010 HCM Signalized</p> <p>51 (29) 196 (428) 175 (128) ↓ ↓ ↓ Nicolaus Rd</p> <p>30 (30) 481 (668) 296 (811) ↓ ↓ ↓</p> <p>Joiner Pkwy</p> <p>216 (147) 663 (496) 63 (52) ↑ ↑ ↑</p> <p>549 (314) 336 (208) 139 (55) ↑ ↑ ↑</p> <p>N/S Signalized LOS: C (F) E/W Signalized Del: 26.1 (98.3)</p> <p>4 Joiner Pkwy & Nicolaus Rd</p>
<p>2010 HCM Signalized</p> <p>35 (62) 680 (1057) 77 (64) ↓ ↓ ↓ 3rd St</p> <p>84 (30) 68 (35) 78 (52) ↓ ↓ ↓</p> <p>Joiner Pkwy</p> <p>81 (56) 24 (34) 78 (70) ↑ ↑ ↑</p> <p>42 (75) 894 (677) 61 (81) ↑ ↑ ↑</p> <p>N/S Signalized LOS: B (B) E/W Signalized Del: 17.6 (16.6)</p> <p>6 Joiner Pkwy & 3rd St</p>	<p>2010 HCM Signalized</p> <p>132 (68) 601 (1045) 48 (86) ↓ ↓ ↓ 1st St</p> <p>103 (47) 63 (26) 282 (105) ↓ ↓ ↓</p> <p>Joiner Pkwy</p> <p>79 (65) 109 (44) 161 (140) ↑ ↑ ↑</p> <p>141 (185) 857 (735) 130 (130) ↑ ↑ ↑</p> <p>N/S Signalized LOS: C (C) E/W Signalized Del: 34.3 (30)</p> <p>7 Joiner Pkwy & 1st St</p>	<p>2010 HCM Signalized</p> <p>15 (367) 569 (706) 24 (5) ↓ ↓ ↓ Ferrari Ranch Rd</p> <p>438 (112) 588 (627) 342 (356) ↓ ↓ ↓</p> <p>Joiner Pkwy</p> <p>7 (4) 456 (610) 104 (63) ↑ ↑ ↑</p> <p>326 (952) 369 (470) 80 (142) ↑ ↑ ↑</p> <p>N/S Signalized LOS: D (F) E/W Signalized Del: 37.8 (134.4)</p> <p>8 Joiner Pkwy & Ferrari Ranch Rd</p>	<p>2010 HCM Signalized</p> <p>83 (84) 468 (903) 608 (757) ↓ ↓ ↓ SR 65</p> <p>0 (105) 795 (1093) 94 (177) ↓ ↓ ↓</p> <p>Nelson Ln</p> <p>826 (721) 998 (866) 947 (1029) ↑ ↑ ↑</p> <p>189 (11) 784 (636) 985 (1129) ↑ ↑ ↑</p> <p>N/S Signalized LOS: F (F) E/W Signalized Del: 222.8 (288.6)</p> <p>10 Nelson Ln & SR 65</p>
<p>2010 HCM TWSC</p> <p>16 (11) 0 (0) 52 (187) ↓ ↓ ↓ Old Nelson Ln</p> <p>16 (5) 202 (404) 0 (0) ↓ ↓ ↓</p> <p>Moore Rd</p> <p>155 (112) 246 (393) 0 (0) ↑ ↑ ↑</p> <p>N/S Stop LOS: A (A) E/W Free Del: 1.5 (7.6)</p> <p>11 Moore Rd & Old Nelson Ln</p>	<p>2000 HCM Signalized</p> <p>65 (223) 0 (0) 337 (612) ↓ ↓ ↓ Ferrari Ranch Rd</p> <p>0 (0) 1345 (867) 1557 (537) ↓ ↓ ↓</p> <p>SR 65 SB Ramps</p> <p>706 (250) 957 (2521) 0 (0) ↑ ↑ ↑</p> <p>N/S Signalized LOS: F (E) E/W Signalized Del: 87.2 (59.6)</p> <p>12 SR 65 SB Ramps & Ferrari Ranch Rd</p>	<p>2000 HCM Signalized</p> <p>220 (69) 1462 (1411) 0 (0) ↓ ↓ ↓ Ferrari Ranch Rd</p> <p>403 (1287) 0 (0) 632 (640) ↓ ↓ ↓</p> <p>SR 65 NB Ramps</p> <p>410 (668) 1020 (1688) 0 (0) ↑ ↑ ↑</p> <p>N/S Signalized LOS: C (E) E/W Signalized Del: 23.9 (70.2)</p> <p>13 SR 65 NB Ramps & Ferrari Ranch Rd</p>	<p>2000 HCM Signalized</p> <p>0 (0) 1038 (474) 972 (887) ↓ ↓ ↓ Lincoln Blvd</p> <p>0 (0) 11 (0) 0 (678) ↑ ↑ ↑ SR 65 SB On-Ramp</p> <p>N/S Signalized LOS: A (A) E/W Signalized Del: 4.6 (8.7)</p> <p>14 Lincoln Blvd & SR 65 SB On-Ramp</p>
<p>2000 HCM Signalized</p> <p>0 (0) 2000 (136) 0 (0) ↓ ↓ ↓ SR 65 NB Off-Ramp</p> <p>53 (235) 0 (0) 11 (2) ↑ ↑ ↑</p> <p>Lincoln Blvd</p> <p>0 (0) 11 (0) 0 (0) ↑ ↑ ↑</p> <p>N/S Signalized LOS: A (A) E/W Signalized Del: 2.9 (2)</p> <p>15 Lincoln Blvd & SR 65 NB Off-Ramp</p>	<p>2010 HCM Signalized</p> <p>51 (79) 485 (407) 7 (7) ↓ ↓ ↓ 1st St</p> <p>64 (62) 64 (93) 200 (5) ↓ ↓ ↓</p> <p>Lincoln Blvd</p> <p>6 (142) 77 (93) 30 (51) ↑ ↑ ↑</p> <p>154 (143) 443 (622) 44 (115) ↑ ↑ ↑</p> <p>N/S Signalized LOS: C (C) E/W Signalized Del: 29.8 (21.6)</p> <p>16 Lincoln Blvd & 1st St</p>	<p>2010 HCM Signalized</p> <p>146 (212) 778 (700) 60 (101) ↓ ↓ ↓ Ferrari Ranch Rd</p> <p>137 (223) 293 (515) 73 (61) ↓ ↓ ↓</p> <p>Lincoln Blvd</p> <p>5 (46) 320 (402) 652 (346) ↑ ↑ ↑</p> <p>49 (188) 573 (1071) 210 (607) ↑ ↑ ↑</p> <p>N/S Signalized LOS: C (E) E/W Signalized Del: 22.4 (62.1)</p> <p>17 Lincoln Blvd & Ferrari Ranch Rd</p>	
A.M. Peak Hour (P.M. Peak Hour) - Cumulative No Project Conditions			

SOURCE: DKS (2017)

FIGURE 4.15-5
Cumulative Peak Hour Volumes

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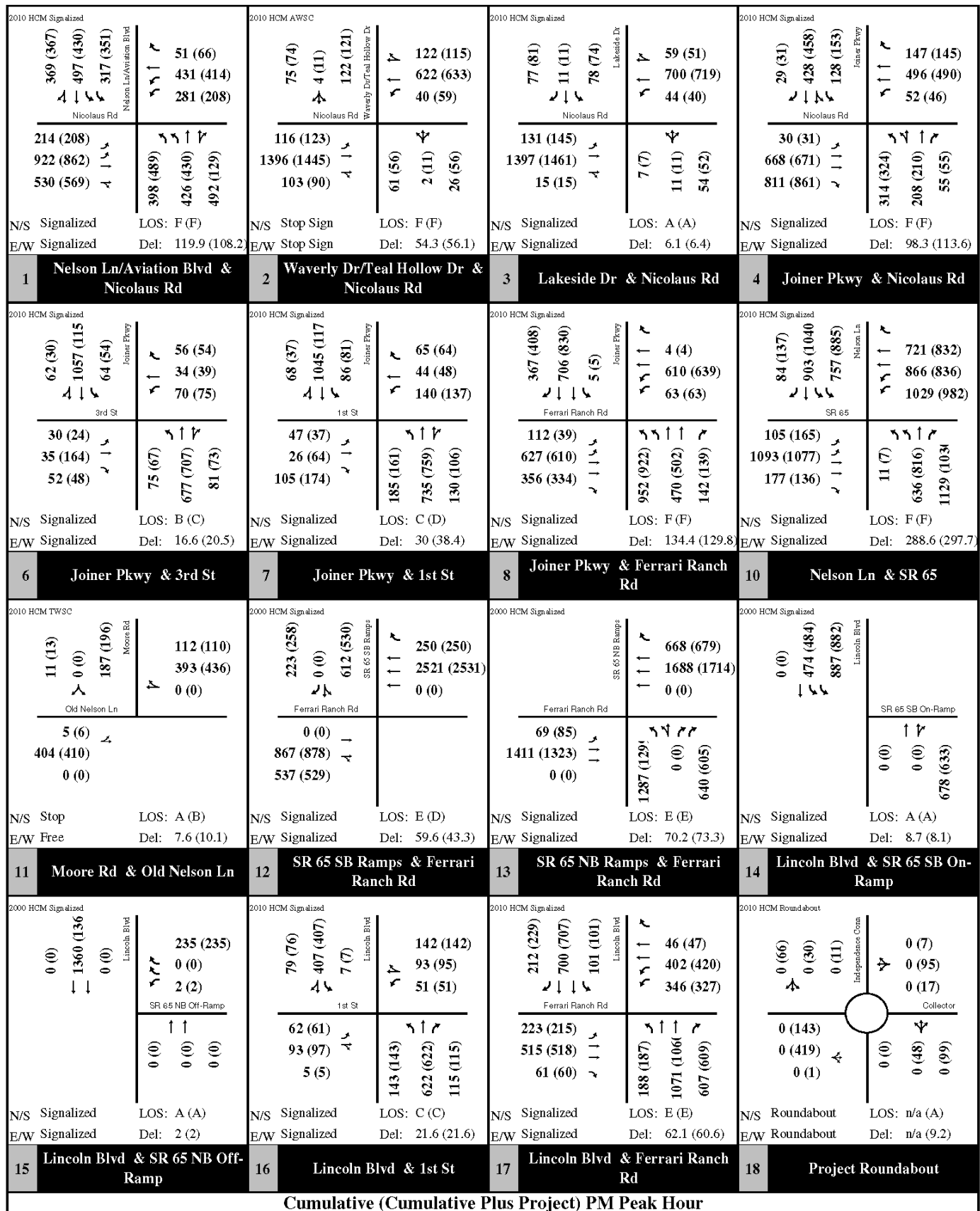
<p>2010 HCM Signalized</p> <p>Nicolaus Rd</p> <p>Nelson Ln/Aviation Blvd</p> <p>N/S Signalized LOS: E (E) E/W Signalized Del: 74.1 (73.6)</p> <p>1 Nelson Ln/Aviation Blvd & Nicolaus Rd</p>	<p>2010 HCM AWS/C</p> <p>Nicolaus Rd</p> <p>Waverly Dr/Teal Hollow Dr</p> <p>N/S Stop Sign LOS: E (E) E/W Stop Sign Del: 48.6 (47.7)</p> <p>2 Waverly Dr/Teal Hollow Dr & Nicolaus Rd</p>	<p>2010 HCM Signalized</p> <p>Nicolaus Rd</p> <p>Lakeside Dr</p> <p>N/S Signalized LOS: A (A) E/W Signalized Del: 7.7 (8.1)</p> <p>3 Lakeside Dr & Nicolaus Rd</p>	<p>2010 HCM Signalized</p> <p>Nicolaus Rd</p> <p>Joiner Pkwy</p> <p>N/S Signalized LOS: C (C) E/W Signalized Del: 26.1 (26.5)</p> <p>4 Joiner Pkwy & Nicolaus Rd</p>
<p>2010 HCM Signalized</p> <p>3rd St</p> <p>Joiner Pkwy</p> <p>N/S Signalized LOS: B (B) E/W Signalized Del: 17.6 (17.2)</p> <p>6 Joiner Pkwy & 3rd St</p>	<p>2010 HCM Signalized</p> <p>1st St</p> <p>Joiner Pkwy</p> <p>N/S Signalized LOS: C (C) E/W Signalized Del: 34.3 (34.8)</p> <p>7 Joiner Pkwy & 1st St</p>	<p>2010 HCM Signalized</p> <p>Ferrari Ranch Rd</p> <p>Joiner Pkwy</p> <p>N/S Signalized LOS: D (D) E/W Signalized Del: 37.8 (39.9)</p> <p>8 Joiner Pkwy & Ferrari Ranch Rd</p>	<p>2010 HCM Signalized</p> <p>SR 65</p> <p>Nelson Ln</p> <p>N/S Signalized LOS: F (F) E/W Signalized Del: 222.8 (252)</p> <p>10 Nelson Ln & SR 65</p>
<p>2010 HCM TWSC</p> <p>Old Nelson Ln</p> <p>Moore Rd</p> <p>N/S Stop LOS: A (A) E/W Free Del: 1.5 (1.5)</p> <p>11 Moore Rd & Old Nelson Ln</p>	<p>2000 HCM Signalized</p> <p>Ferrari Ranch Rd</p> <p>SR 65 SB Ramps</p> <p>N/S Signalized LOS: F (F) E/W Signalized Del: 87.2 (93.2)</p> <p>12 SR 65 SB Ramps & Ferrari Ranch Rd</p>	<p>2000 HCM Signalized</p> <p>Ferrari Ranch Rd</p> <p>SR 65 NB Ramps</p> <p>N/S Signalized LOS: C (C) E/W Signalized Del: 23.9 (25.2)</p> <p>13 SR 65 NB Ramps & Ferrari Ranch Rd</p>	<p>2000 HCM Signalized</p> <p>SR 65 SB On-Ramp</p> <p>Lincoln Blvd</p> <p>N/S Signalized LOS: A (A) E/W Signalized Del: 4.6 (4.7)</p> <p>14 Lincoln Blvd & SR 65 SB On-Ramp</p>
<p>2000 HCM Signalized</p> <p>SR 65 NB Off-Ramp</p> <p>Lincoln Blvd</p> <p>N/S Signalized LOS: A (A) E/W Signalized Del: 2.9 (2.9)</p> <p>15 Lincoln Blvd & SR 65 NB Off-Ramp</p>	<p>2010 HCM Signalized</p> <p>1st St</p> <p>Lincoln Blvd</p> <p>N/S Signalized LOS: C (C) E/W Signalized Del: 29.8 (29.6)</p> <p>16 Lincoln Blvd & 1st St</p>	<p>2010 HCM Signalized</p> <p>Ferrari Ranch Rd</p> <p>Lincoln Blvd</p> <p>N/S Signalized LOS: C (C) E/W Signalized Del: 22.4 (22.6)</p> <p>17 Lincoln Blvd & Ferrari Ranch Rd</p>	<p>2010 HCM Roundabout</p> <p>Independence Con</p> <p>Collector</p> <p>N/S Roundabout LOS: n/a (A) E/W Roundabout Del: n/a (7.0)</p> <p>18 Project Roundabout</p>
Cumulative (Cumulative Plus Project) AM Peak Hour			

SOURCE: DKS (2017)

FIGURE 4.15-6

Cumulative Plus Project A.M. Peak Hour Volumes

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SOURCE: DKS (2017)

FIGURE 4.15-7

Cumulative Plus Project P.M. Peak Hour Volumes

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Table 4.15-13 shows that a number of study intersections are anticipated to operate at LOS D or below under cumulative without project conditions. These intersections include the following:

- Nicolaus Road and Nelson Lane/Aviation Boulevard (LOS E during a.m. peak hour and LOS F during p.m. peak hour)
- Nicolaus Road and Waverly Drive/Teal Hollow Drive (LOS E during a.m. peak hour and LOS F during p.m. peak hour)
- Nicolaus Road and Joiner Parkway (LOS F during p.m. peak hour only)
- Joiner Parkway and Ferrari Ranch Road (LOS D during a.m. peak hour and LOS F during p.m. peak hour)
- Nelson Lane and SR 65 (LOS F during both a.m. and p.m. peak hours)
- SR 65 Southbound Ramps and Ferrari Ranch Road (LOS F during a.m. peak hour and LOS E during p.m. peak hour)
- SR 65 Northbound Ramps and Ferrari Ranch Road (LOS E during p.m. peak hour only)
- Lincoln Boulevard and Ferrari Ranch Road (LOS F during p.m. peak hour only)

The LOS results are based on traffic volumes that include traffic associated with the recently approved Lincoln Village 5 Specific Plan; however, the results do not assume any mitigation measures identified in the Lincoln Village 5 Specific Plan traffic impact analysis, as those mitigation measures have not yet been adopted by the City of Lincoln or incorporated into their Public Facilities Element. Where applicable, mitigation measures identified in this analysis will be consistent with mitigation measures identified in the Lincoln Village 5 Specific Plan analysis.

Table 4.15-13 shows the cumulative plus project LOS results and highlights locations that do not meet the applicable LOS standard, as well as the locations that are significantly impacted based on the applicable standards of significance. The table shows LOS impacts at the following locations:

- Joiner Parkway and Nicolaus Road (LOS F with increase in delay greater than 5 seconds during p.m. peak hour only)
- Joiner Parkway and First Street (Degrades from LOS C to LOS D during the p.m. peak hour)
- Nelson Lane and SR 65 (Remains LOS F with increase in delay greater than 5 seconds during both a.m. and p.m. peak hour)
- SR 65 Southbound Ramps and Ferrari Ranch Road (LOS F with increase in delay greater than 5 seconds during a.m. peak hour only)

Residential Roadway Operation Impacts. Table 4.15-14 shows cumulative without project and cumulative plus project daily volumes and resultant LOS on local residential roadways providing

access to the proposed project. Table 4.15-14 also shows projected daily volumes on two of the main residential roadways within the proposed project. Projected daily volumes on most of the local residential streets adjacent to the proposed project are high enough to result in LOS D–F conditions, and the addition of the proposed project would increase traffic volumes on these roadways. Since roadway segment LOS is not a determinant of significant impacts based on the City’s General Plan, these numbers are presented for informational purposes only.

Table 4.15-14
Daily Roadway Volumes and Level of Service - Cumulative Conditions

Roadway	Segment	Roadway Type	Cumulative Conditions		Cumulative Plus Project	
			ADT	LOS	ADT	LOS
Existing Roadways						
First Street	West of Chambers	Two-Lane Local Residential	2,800	D	3,300	E
	West of Joiner	Two-Lane Local Residential	5,700	F	5,800	F
Third Street	West of Chambers	Two-Lane Local Residential	1,500	C	2,700	D
	West of Joiner	Two-Lane Local Residential	3,400	E	3,700	E
Fifth Street	West of Joiner	Two-Lane Local Residential	2,800	D	2,400	D
Roadways Added With Proposed Project						
Third Street	West of Current City Limit	Two-Lane Local Residential	n/a		2,800	D
First Street	West of Current City Limit	Two-Lane Local Residential	n/a		2,700	D

Note: Bold Locations exceed LOS C

Source: DKS 2015.

Freeway Operation Impacts. Because of its large employment potential, the proposed project would likely cause a shift in travel patterns between the City and communities to the south. Additional employment in Lincoln would allow Lincoln residents (both within and outside the proposed project) more opportunities for working close to home. Thus, the addition of the proposed project would both potentially add traffic to SR 65 (based on new land uses) and also take traffic away from SR 65, based on revised travel patterns and distribution. The traffic impact analysis showed that that, in general, volumes along SR 65 would increase northbound and decrease southbound during the a.m. peak hour and would increase southbound and increase northbound during the p.m. peak hour.

Table 4.15-15 shows the cumulative changes in traffic density and resultant LOS along SR 65 with the addition of the proposed project. The table shows that a number of locations along SR 65 are projected to operate at LOS F conditions under both cumulative without project and cumulative plus project conditions. Slight decreases in volume associated with redistribution of travel would result in some locations having a slight decrease in density. Increases in density at locations already projected to operate at LOS F are considered to be

significantly impacted based on the applicable standards of significance and include the following two locations:

- Twelve Bridges Northbound Off-Ramp (a.m. peak hour)
- Nelson Lane to Ferrari Ranch Road (p.m. peak hour)

Table 4.15-15
SR 65 Freeway LOS Cumulative Conditions

	Segment	Type	Cumulative		Cumulative Plus Project	
			Density ²	LOS ³	Density ²	LOS ³
Northbound A.M. Peak Hour	Sunset On to Twelve Bridges Off-Ramp	Segment	57.7	F	62.3	F
	Twelve Bridges Off-Ramp	Off-Ramp	47.3	F	48.4	F
	Twelve Bridges Off to On-Ramp	Segment	32.7	D	34.8	D
	Twelve Bridges On to Lincoln Off-Ramp	Weave	33.2	D	34.5	D
	Lincoln to Ferrari Ranch Off-Ramp	Segment	19.5	C	20.4	C
	Ferrari Ranch Off-Ramp	Off-Ramp	17.7	B	18.4	B
	Ferrari Ranch Off to On-Ramp	Segment	19.7	C	20.9	C
	Ferrari Ranch On-Ramp	On-Ramp	27	C	28.1	D
	Ferrari Ranch On to Nelson	Segment	25.9	C	27.3	D
Southbound A.M. Peak Hour	Sunset On to Twelve Bridges Off-Ramp	Segment	20.6	C	21.2	C
	Twelve Bridges Off-Ramp	Off-Ramp	26	C	26.5	C
	Twelve Bridges Off to On-Ramp	Segment	18.8	C	19.1	C
	Twelve Bridges On to Lincoln Off-Ramp	Weave	15.7	B	15.5	B
	Lincoln to Ferrari Ranch Off-Ramp	Segment	27.4	C	27.2	C
	Ferrari Ranch Off-Ramp	Off-Ramp	41.1	E	40.6	E
	Ferrari Ranch Off to On-Ramp	Segment	42.1	E	42	E
	Ferrari Ranch On-Ramp	On-Ramp	47.3	F	46.9	F
	Ferrari Ranch On to Nelson	Segment	50.7	F	50.3	F
Northbound PM Peak Hour	Sunset On to Twelve Bridges Off-Ramp	Segment	130	F	125	F
	Twelve Bridges Off-Ramp	Off-Ramp	56.1	F	55.8	F
	Twelve Bridges Off to On-Ramp	Segment	49	F	48.6	F
	Twelve Bridges On to Lincoln Off-Ramp	Weave	v/c>1	F	v/c>1	F
	Lincoln to Ferrari Ranch Off-Ramp	Segment	20.9	C	20.8	C
	Ferrari Ranch Off-Ramp	Off-Ramp	23.7	C	23.5	C
	Ferrari Ranch Off to On-Ramp	Segment	15.5	B	15.5	B
	Ferrari Ranch On-Ramp	On-Ramp	23.8	C	24.2	C
	Ferrari Ranch On to Nelson	Segment	21.6	C	12.9	B
Southbound PM Peak Hour	Sunset On to Twelve Bridges Off-Ramp	Segment	26.1	D	26.3	D
	Twelve Bridges Off-Ramp	Off-Ramp	31.7	D	56.4	D
	Twelve Bridges Off to On-Ramp	Segment	18.6	C	19.2	C
	Twelve Bridges On to Lincoln Off-Ramp	Weave	14.4	B	15	B
	Lincoln to Ferrari Ranch Off-Ramp	Segment	18.7	B	19.1	B

Table 4.15-15
SR 65 Freeway LOS Cumulative Conditions

Segment	Type	Cumulative		Cumulative Plus Project	
		Density ²	LOS ³	Density ²	LOS ³
Ferrari Ranch Off-Ramp	Off-Ramp	27.9	D	28.8	D
Ferrari Ranch Off to On-Ramp	Segment	39.3	E	39.5	E
Ferrari Ranch On-Ramp	On-Ramp	42.7	E	43.9	E
Ferrari Ranch On to Nelson	Segment	44.3	F	44.9	F

Notes:

Based on Freeway Performance Measurement System data.

Density given as passenger cars per mile per lane.

Bold locations do not meet current LOS Policy, **Shaded** indicates LOS Impact**Construction**

Project construction is anticipated to occur over a 2 to 10 year period with multiple phases. Phases may occur either sequentially or concurrently. Project construction trips would consist of haul truck trips, delivery truck trips, and construction worker commute trips. Given the capacity of the main streets access streets (Nicolaus Road, Nelson Lane), and the phased nature of construction, these impacts are anticipated to be less than significant.

Summary

A direct (existing plus project) impact would occur at the following intersection:

- Nicolaus Road and Nelson Lane/Aviation Boulevard (a.m. and p.m. peak hour)

Cumulative (future conditions plus project) impacts would occur at the following four intersections:

- Joiner Parkway/Nicolaus Road (p.m. peak hour)
- Joiner Parkway/First Street (p.m. peak hour)
- Nelson Lane/SR 65 (a.m. and p.m. peak hour)
- SR 65 Southbound Ramps/ Ferrari Ranch Road (a.m. peak hour)

A cumulative impact (future conditions plus project) would occur at the following freeway off-ramps:

- Twelve Bridges Northbound Off-Ramp (a.m. peak hour)

Traffic impacts are therefore potentially **significant**.

Impact 4.15-2: The project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

The Placer County CMP does not designate standards for roadways or highways. Therefore, the project cannot conflict with CMP standards and there is **no impact**.

Impact 4.15-3: The project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

The project would lead to population and employment growth in the area. As such, it could potentially result in an increase in air travel. However, this increase in air travel is anticipated to be dispersed throughout the region, in which several other airports are located, such as the Sacramento International Airport. The compatibility of proposed land uses with the airport, per the ALUCP, are discussed in Section 4.10, Land Use. Impacts related to air traffic would be **less than significant**.

Impact 4.15-4: The project would not substantially increase hazards due to a design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment).

The proposed project would establish a circulation network internal to the site to serve commercial and residential uses. The project site would connect to the existing roadway network at Nelson Lane to the west; First Street, Third Street and Singer Place to the west; and a connection to the proposed Independence project just south of Markham Ravine. The ingress/egress locations on Nelson Lane have been designed to safely accommodate the traffic volumes for both the commercial land uses, and access to the residential areas in the east half of the project site. The proposed Nelson Lane intersections are also compatible with future improvements to the Highway 65/Nelson Lane interchange.

No potentially incompatible traffic, such as agricultural equipment, or large heavy truck volumes, would be introduced to the project site. Furthermore, all new roadways would be constructed in accordance with City new roadway standards. Safety impacts involving the new roadways and circulation within the project site would therefore be **less than significant**.

Impact 4.15-5: Would the project result in inadequate emergency access?

The project includes adequate ingress/egress to the project site. Project roadways would be designed in accordance with uniform fire code standards and prior to the issuance of building permits, adequate emergency access would be ensured through the plan check process and fire

review. Compliance with these existing regulations would ensure that adequate site access is provided, thereby ensuring that adequate emergency access would be available within and around the site during operation. Construction may require some lane closures on Nelson Lane and Nicolaus Road for frontage improvements and construction of the two community entryways. However, the closures would comply with City traffic control measures, as enforced through the right-of-way encroachment permit. Impacts would be **less than significant**.

Impact 4.15-6: The project would not conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

General Plan Policy LU-1.6 states: “The City will promote the application of land use layouts and community designs that provide residents with transportation choices to walk, ride bicycles, ride transit services, as well as utilize a vehicle, including neighborhood electric vehicles.”

There are currently no existing bicycle facilities within the project site or directly adjacent to the project site. The City’s 2012 *Bicycle Transportation Plan Update* does, however, indicate that there would be future bicycle facilities on roadways providing access to the project site. The plan indicates the following future bicycle facilities in its map of existing and future bicycle facilities:

- Class II bike lane along Nelson Lane, along the entire western boundary of project site.
- Class II bike lanes along First Street and Third Street, from downtown Lincoln to the roadways’ current termini at the project boundary.
- Class I bike path along the far eastern boundary of the project site (City of Lincoln 2012).

Per the proposed Specific Plan standards (Chapter 4), all collector streets would have dedicated bicycle lanes and separated sidewalks. An off-street bicycle route (Class I) will be provided in the open space corridor connecting Gateway Park Drive to Markham Ravine. Bicycle routes will also be provided adjacent to Markham and Auburn Ravine. All local streets will have separated sidewalks and adequate width. There will also be a pedestrian trail through the open space corridor on the southern edge of the project site (connecting the two parks in the southern residential area adjacent to SR 65).

The proposed project would result in an increase in population and employment in the city, increasing the number of people in the City who may use public transit services. However, aside from dial-a-ride services, the proposed project site is not directly served by any transit routes. The closest existing transit stops are over one mile east of the project site. There is the potential for future transit services to be provided closer to the project site in order to serve the project, the surrounding neighborhoods, and the adjacent projects, as the population in the area increases. The City may consider a bus turnout and shelter at either Nelson Lane and/or Gateway Park Drive. The

design of the proposed project would have the potential to enable access for future transit services, in the event transit services are extended to the area.

Neighborhood electric vehicles (NEVs) are an alternative form of transportation used in the City. In 2006, the City developed the *NEV Transportation Plan* to encourage the use of NEVs as an alternative for short, local trips. Improvements outlined in the *NEV Transportation Plan* include signage and striping improvements, special parking spaces, and a NEV crossing at the Auburn Ravine. The overall goal is to create “City-wide NEV routes that would ‘enable any resident to travel from their home to Downtown Lincoln’” (City of Lincoln 2006). The proposed Specific Plan supports includes standards to facilitate safe and convenient NEV travel on project area roadways. NEVs can be used on all roadways within this Specific Plan Area that have a posted speed limit of 35 miles per hour or less. In addition, Class II NEV routes, which are on-street striped lanes adjacent to traffic that allow for combined NEV/bicycle use, will be provided along northbound Nelson Lane, eastbound Nicolaus Road, Gateway Park Drive, and Flyway Boulevard.

The proposed project would not conflict with City policies regarding alternative transportation. Therefore, this potential impact is **less than significant**.

4.15.5 Mitigation Measures

The following mitigation measure(s) would reduce the potential for impacts to traffic and circulation.

MM-TRA-1 Project applicant shall contribute to the installation of a traffic signal at the intersection of Nicolaus Road and Nelson Lane/Aviation Boulevard. These improvements are included in the proposed update to the City’s PFE fee program. If the PFE program is adopted prior to the issuance of building permits, the PFE payment will satisfy this requirement. If the PFE update is not adopted prior to the issuance of building permits, the City may require the project applicant to construct the improvements and pay the project’s fair share of the intersection improvement cost. The applicant’s fair share shall not exceed the amount that would be required under the proposed PFE fee schedule. The City would provide the project applicant with a right of reimbursement from third parties who also benefit from the improvements.

MM-TRA-2 Project applicant shall contribute to the provision of separate northbound and southbound right turn lanes at the intersection of Joiner Parkway and First Street. These improvements are included in the proposed update to the City’s PFE fee program. If the PFE program is adopted prior to the issuance of building permits, the PFE payment will satisfy this requirement. If the PFE update is not adopted prior to the issuance of building permits, the project applicant shall pay the

project's fair share of the improvement costs. The applicant's fair share shall not exceed the amount that would be required under the proposed PFE fee schedule.

- MM-TRA-3** Project applicant shall contribute toward the provision of a protected eastbound right turn movement at the intersection of Joiner Parkway and Nicolaus Road. These improvements are included in the proposed update to the City's PFE fee program. If the PFE program is adopted prior to the issuance of building permits, the PFE payment will satisfy this requirement. If the PFE update is not adopted prior to the issuance of building permits, the project applicant shall pay the project's fair share of the improvement costs. The applicant's fair share shall not exceed the amount that would be required under the proposed PFE fee schedule.
- MM-TRA-4** Project applicant shall contribute toward the construction of a grade-separated interchange to replace the current intersection of Nelson Lane and State Route 65. These improvements are included in the proposed update to the City's PFE fee program. If the PFE program is adopted prior to the issuance of building permits, the PFE payment will satisfy this requirement. If the PFE update is not adopted prior to the issuance of building permits, the project applicant shall pay the project's fair share of the improvement costs. The applicant's fair share shall not exceed the amount that would be required under the proposed PFE fee schedule.
- MM-TRA-5** Project applicant shall contribute toward the provision of a channelized protected eastbound right turn movement at the intersection of State Route 65 southbound ramps and Ferrari Ranch Road. These improvements are included in the proposed update to the City's PFE fee program. If the PFE program is adopted prior to the issuance of building permits, the PFE payment will satisfy this requirement. If the PFE update is not adopted prior to the issuance of building permits, the project applicant shall pay the project's fair share of the improvement costs. The applicant's fair share shall not exceed the amount that would be required under the proposed PFE fee schedule.
- MM-TRA-6** Project applicant shall contribute toward improvements to the Twelve Bridges Northbound Off-Ramp. The PFE program includes restriping the northbound off-ramp converting the existing shared through-right turn lane to a shared through-left turn lane. If the PFE program is adopted prior to the issuance of building permits, the PFE payment will satisfy this requirement. If the PFE update is not adopted prior to the issuance of building permits, the project applicant shall pay the project's fair share of the improvement costs. The applicant's fair share shall not exceed the amount that would be required under the proposed PFE fee schedule.

4.15.6 Level of Significance After Mitigation

Impact 4.15-1 would be reduced with the implementation of feasible mitigation measures as described below.

Existing Plus Project Conditions

- Nicolaus Road and Nelson Lane/Aviation Boulevard (a.m. and p.m. peak hour). The installation of a traffic signal, per Mitigation Measure TRA-1, at this location would mitigate the a.m. and p.m. peak hour project impacts at this location under both the a.m. and p.m. peak hours. Based on Existing Plus Project traffic volumes, no additional lanes would be required and the installation of a traffic signal at this location would improve level of service to LOS B during both the a.m. and p.m. peak hours.

Direct project impacts would be reduced to **less than significant**.

Cumulative Conditions

- Joiner Parkway/First Street (p.m. peak hour). The provision of separate northbound and southbound right turn lanes at the intersection of Joiner Parkway and First Street, per Mitigation Measure TRA-2, would reduce the impact at this intersection to less than significant.
- Joiner Parkway/Nicolaus Road (p.m. peak hour). Provision of a protected eastbound right turn (overlapping northbound left turns and requiring the prohibition of northbound U-turns), per Mitigation Measure TRA-3, would improve the LOS at this intersection from LOS F to LOS E under cumulative-plus-project conditions. While LOS E does not meet the City's LOS C policy, implementation of this mitigation measure would improve the intersection to a level of operation that would be better than cumulative-without-project conditions. Therefore, project impacts with mitigation would therefore be less than significant.
- Nelson Lane/SR 65 (a.m. and p.m. peak hour). The SR 65 Bypass has been built as a freeway with interchanges at Lincoln Boulevard and Ferrari Ranch Road, and it currently transitions to a conventional highway between Ferrari Ranch Road and Nelson Lane, with a signalized intersection at Nelson Lane. The SR 65 Bypass was designed to operate this way temporarily and then eventually be improved to a full grade-separated freeway north to Wheatland with an interchange at Nelson Lane. The improvement of the SR 65 Bypass to full freeway standards has not yet been funded. At such time that a funding mechanism is developed for these improvements, the proposed project would be required to pay a fair share contribution toward this improvement. Typical interchange geometrics would be anticipated to result in LOS C or better at the new northbound and southbound

ramps. This would fully mitigate the project's contribution to a cumulative impact. However, not all of the traffic-related improvements would be funded by the City's PFE. Further, even if the South Placer Regional Transportation Agency fee program is approved by the voters, the program would only partially fund the necessary improvements. Because the funding has not been identified and the improvements have not been programmed, the impact remains significant and unavoidable at this time.

- SR 65 Southbound Ramps/Ferrari Ranch Road (a.m. peak hour). The intersection of SR 65 southbound ramps and Ferrari Ranch Road is projected to operate at LOS F with average intersection delay of 87.2 seconds under cumulative-without-project conditions during the a.m. peak hour. The addition of the proposed project would increase delay to 93.2 seconds, an increase of more than 5 seconds. Provision of a channelized (and protected) eastbound right turn lane on Ferrari Ranch Road, per Mitigation Measure TRA-5, would improve this location to LOS D with a delay of 49.2 seconds during the a.m. peak hour. Because the LOS standard for this interchange is LOS D, this improvement would reduce the impact at this intersection to less than significant.
- Twelve Bridges Northbound Off-Ramp (a.m. peak hour). It is anticipated that improvements to this off-ramp, and included in the PFE program, would reduce the cumulative-plus-project impacts to less than significant.

Implementation of Mitigation Measure TRA-1 would reduce direct project impacts (described in the analysis as existing conditions plus project), to less than significant. Mitigation Measures TRA-2 through TRA-6 would reduce cumulative impacts to less than significant at four of the five study intersections. Construction of the Nelson Lane/SR 65 cannot reasonably be assumed at this time, given the lack of funding, resulting in a cumulative impact that is **significant and unavoidable**.

4.15.7 Cumulative Analysis

Cumulative impacts are incorporated into Impact 4.15-1. Cumulative impacts would be significant and unavoidable at Nelson Lane/SR 65 a.m. and p.m. peak hour. Therefore, cumulative traffic impacts are significant and unavoidable.

4.15.8 References

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4.16 URBAN DECAY

This section analyzes the potential of the SUD-B Northeast Quadrant Specific Plan (proposed project) to result in urban decay impacts. A discussion of the various factors involved in assessing such impacts is provided below.

No comments regarding urban decay issues were received in response to the Notice of Preparation (NOP, see Appendix A).

The analysis and findings in this section are based on the information contained in the “Lincoln Special Use District-B (SUD-B) Northeast Quadrant Plan Urban Decay Analysis” prepared by ALH Urban & Regional Economics and dated July 2015 (Appendix H).

4.16.1 Introduction

According to the California Environmental Quality Act (CEQA) Guidelines (15358 [b]), impacts to be analyzed in an EIR must be “related to physical changes” in the environment. While the CEQA Guidelines (15131 [a]) do not directly require an analysis of a project’s social or economic effects because such impacts are not in and of themselves considered significant effects on the environment, the Guidelines also state:

An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes caused in turn by economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

The CEQA Guidelines also provide that physical effects on the environment related to changes in land use, population, and growth rate induced by a project may be indirect or secondary impacts of the project and should be analyzed in an EIR if the physical effects would be significant (see Guidelines 15358[a][2]).

The State of California Fifth District Court of Appeal has ruled that CEQA can require analysis of physical urban decay or deterioration resulting from the development of new shopping centers (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) F044943 (Super. Ct. No. 249669)).¹ The Court also ruled that the cumulative impact analysis for the proposed shopping

¹ In using the term “urban decay,” the Appeals Court specifically noted that “urban decay” is distinct from “urban blight,” which, per the California Health & Safety Code (Sections 33030 to 33039) definition, is not applicable to this project.

centers should consider all other past, present, or reasonably foreseeable future retail projects within the project's market area.

For the purposes of this analysis, urban decay is defined as physical deterioration to properties or structures that is so prevalent, substantial, and lasting for a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community. The manifestations of urban decay include such visible conditions as plywood-boarded doors and windows, uncontrolled truck parking, long term unauthorized use of the properties and parking lots, extensive gang and other graffiti and offensive words painted on buildings, dumping of refuse on site, overturned dumpsters, broken parking barriers, broken glass littering the site, dead trees and shrubbery together with weeds, lack of building maintenance, homeless encampments, and unsightly and dilapidated fencing.

It is important to recognize that, like most CEQA requirements, this standard is focused on impacts to the physical environment and as such it requires the consideration of conditions of disinvestment that could result in the decay of real property as a result of the proposed project.²

4.16.2 Existing Conditions

This section describes the existing conditions in the area included within the urban decay analysis, this includes the City of Lincoln and the City of Wheatland and the community of Sheridan.

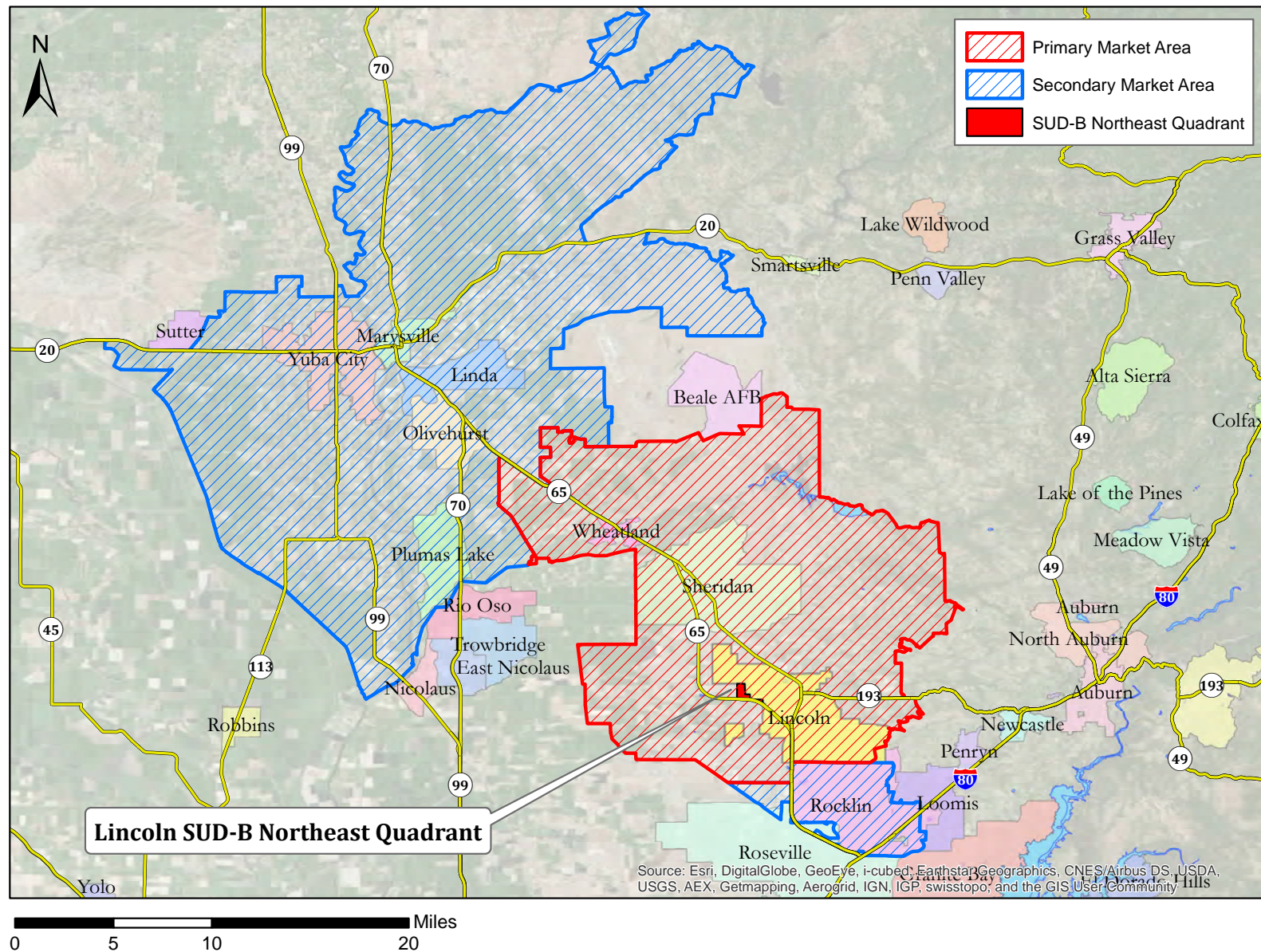
4.16.2.1 Project Market Area

The primary market area for the proposed project's retail uses is assumed to comprise the cities of Lincoln and Wheatland and the community of Sheridan. Given the size of the project's retail component, it is anticipated the proposed project would also capture a secondary market area demand, which translates to shoppers, from the cities of Marysville, Yuba City, and Rocklin. In addition, up to 20% of the project's retail space is anticipated to be supported by shoppers originating from outside these market areas, comprising a third market area. Figure 4.16-1 shows the primary and secondary markets.

Market Conditions and Primary Market Area

To define the primary market area the project site was mapped relative to other major retail shopping areas. Travel time and distance was estimated for various communities to the project site versus other shopping centers. Because of the proposed project's location near the City of Lincoln, Lincoln residents are assumed to comprise the majority of people and shopper's

² These conditions are distinct from conditions of blight which are defined by the California Health and Safety Code (Sections 33030-33039) which instead set the standards for the adoption of redevelopment project areas.



SOURCE: ALH & ECON (2015)

**FIGURE 4.16-1
Market Area**

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SUD-B Northeast Quadrant Specific Plan DEIR

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accessing the project's retail stores. Thus, all of Lincoln is included in the primary market area. However, the project site is also proximate to other locations in Placer County for which Lincoln and the project area are among the closest major shopping nodes. These locations primarily include Sheridan, an unincorporated area to the northwest of Lincoln along Highway 65, and the City of Wheatland, a small city also located northwest of Lincoln along Highway 65.

Fieldwork was conducted in the cities of Lincoln, and Wheatland and the community of Sheridan located in unincorporated Placer County to identify and visit primary retail areas, examine the physical condition of major shopping centers and commercial shopping corridors, and identify existing retail vacancies and assess their condition and appearance. These observations are complemented by historical and current retail market performance data, demonstrating the underlying strength or weakness of the local commercial retail market. This detail is available in **Appendix H** of this EIR. A discussion of the existing market conditions is provided below.

City of Lincoln

Lincoln's Historic Downtown District stretches from First Street to Seventh Street between G and E streets, with buildings dating from the late 1800s. This district is characterized by specialty merchants and small-town charm. The Downtown consists of many civic and community uses, restaurants, services, offices, and a mix of both "mom and pop" and chain retail. The heart of downtown is the relinquished Highway 65, now Lincoln Boulevard, or "G" Street. The construction of the Highway 65 Bypass in 2012 alleviated much of the congestion in the Historic District and created a more pedestrian friendly experience. The Downtown District reflects much of the rustic small town feel of the 1800s, and many of the buildings have been maintained or renovated into mixed uses.

Overall, there are very few vacancies in the retail and office market in the Downtown District, indicating a strong market. A Walmart Neighborhood market opened in late 2012. During the time of fieldwork (June 2015), the largest vacancy in the Downtown District was the Beerman Building at 645 5th Street. However, this site is now occupied by Beerman's Brewery opened in 2015.

Outside of Downtown Lincoln other retail centers include the Lincoln Hills Town Center, located at Lincoln Boulevard and Ferrari Ranch Road. This approximately 120,000-square-foot retail center opened in 2000 and is anchored by a Safeway and has a high occupancy rate of over 95 percent. Further south on Lincoln Boulevard and Sterling Parkway is the Sterling Pointe Shopping Center, a major mixed-use retail center anchored by a Raley's grocery store. Parkway Plaza is also located on Lincoln Boulevard across East Joiner Parkway from the Sterling Pointe Shopping Center. This approximately 220,000-square-foot shopping center is anchored by Lowe's Home Improvement Warehouse, Dollar Tree, Red Robin, and Big 5 Sporting Goods.

Closer to Downtown Lincoln, the mixed-use 74,000-square-foot Gateway Center at 140 Lincoln Boulevard, constructed in 2008, this project offers mixed-use retail and office opportunities.

Another major retail area is Lincoln Crossing Marketplace at Ferrari Ranch and Joiner Parkway, which abuts the Highway 65 Bypass. This major retail hub was constructed in 2006 and includes over 380,000 square feet of retail space anchored by Target, Home Depot, PetSmart, and Ross. Lincoln Village at Twelve Bridges is a retail area that serves the Del Webb community. This is a 50,000-square-foot neighborhood-serving retail center development.

All of these retail areas are generally in good condition with properties well-kept and vacancies well maintained, lacking any signs of decay. There are a wide range of retailers in Lincoln, but the city lacks specialty retailers, department stores, or even significant men's apparel shopping, among others. Building materials retailers are the only category of specialty retail sufficiently available.

During fieldwork conducted in June 2015 there were no visible signs of litter, graffiti, weeds, or rubbish associated with existing commercial nodes and corridors in the City of Lincoln. All vacant properties were well-maintained with no signs of decay or deterioration. There were, however, two properties with characteristics that could be considered precursor indicators of deterioration. These include the closed Mimi's Café in the Sterling Pointe Shopping Center, with a window boarded up with plywood, and the partially built Terra Cotta Village project located at the intersection of Colonnade and Twelve Bridges drives. Even these two properties, however, are well-maintained.

City of Wheatland

The City of Wheatland, which is 11.5 miles northwest of Lincoln, primarily provides local serving retail. There is a small grocery store located in Downtown along with personal and medical services, auto services, a pharmacy, and a thrift store. The area also includes select retail located along Highway 65, which passes through the City of Wheatland. This primarily includes an approximately 43,000-square-foot shopping center, Settlers Village Center, with a relatively new Dollar General store, a fitness club, a florist, numerous restaurants, and some small shop vacancies. While numerous, these vacancies are in good physical condition and do not exhibit any signs of urban decay or deterioration.

Community of Sheridan

Sheridan is a small community located approximately eight miles northwest of Lincoln. This is a relatively rural community with no commercial center. There is one small convenience store in Sheridan with a range of general merchandise including groceries, a meat and deli counter, hardware, sporting goods, and auto supplies.

4.16.2.2 Market Area and Retail Base Characterization

The market area definition is based on the principle that most consumers will travel to the shopping destination most convenient to their homes given the type of goods available. A retail store's trade area generally supplies 70% to 90% of the store's sales, while the remaining 10% to 30% of sales are attributed to consumers residing outside of the store's market area. In keeping with the approach toward market area definition, the majority of demand for the proposed project's retail space would originate from a defined market area, the core of which would include the City of Lincoln given the proposed project's location in Lincoln. Yet, as recognized by industry standards, there will be other areas that generate a portion of project demand. Approximately 10% to 25% or slightly more of demand for many retail areas or concentrations can originate from beyond a defined market area. Based on industry data, the project's location along the Highway 65 bypass, and Lincoln's strong sports tourism market, it is estimated that 20% of project demand would originate from outside well defined market areas (a tertiary market area), whereas 80% of project demand would originate from defined areas including primary and secondary market areas (ALH 2015).

Secondary Market Area

The proposed project is anticipated to serve a larger regional market beyond the City of Lincoln. The project's regional retail uses could provide an opportunity to capture demand from other locations further west on Highway 65, such as Marysville, which has a small retail base, and Yuba City, which has a larger base, but is limited in scope. Shoppers from these locations are already passing by Lincoln on their way to take advantage of the large regional-serving retail base in the City of Roseville (ALH 2015).

For regional retail in Lincoln to be successful it will need to intercept shoppers from Marysville and Yuba City before they travel to Roseville. While Lincoln might be too close to Roseville for some retailers to be willing to establish yet another location in the immediate region, retail is a very dynamic industry, and by the time the project's retail is developed there will most assuredly be new concepts and new retailers active in the marketplace.

In addition, Lincoln shares a border to the east with the City of Rocklin. This means there are some portions of the City of Rocklin that are closer to the commercial nodes in Lincoln than in Rocklin. With the distribution of roads and regional transportation patterns, it can take less time for Rocklin residents to travel to Lincoln than to other commercial shopping areas. Compared to the other communities, Rocklin appears to serve resident shopping needs to a lesser extent than other nearby cities, suggesting shopping in nearby communities is already happening.

4.16.1.3 Non-Retail Employment Generating Uses

The proposed project's non-retail space could comprise a mix of uses, including office, business professional, or service industry. Currently, employment in the City totals approximately 9,200 (Frayji 2016). Employment throughout Placer County in 2015 totaled an estimated 156,600 (ALH 2015). Lincoln's employment base comprises a small percentage of the county total at 5.9%. Several key industry sectors dominate the county's economy. These include service industries with 21% of the 2015 employment base, retail and office sectors with 35% of the employment base, medical with 13% of the employment base, and industrial with 11% of the employment base. The remaining industry sectors comprise less than 20% of the county's employment base, including food at 8%, and government and education at 6% each (ALH 2015). Employment in all these sectors requires different types of space to conduct operations, including the type of office space that could be developed at the proposed project.

Office

The City of Lincoln currently has a limited supply of office space, estimated to total just over 300,000 square feet (ALH 2015). This market focuses on small offices and medical services, none of which is Class A office space. Lincoln has no large, high rise, or corporate style office space options. The downtown corridor offers mixed-use options, but is primarily limited to niche type office space or medical services of a few thousand square feet. The office space near Sun City is primarily focused on medical and financial services. The other major office nodes are the Sterling Pointe and Lincoln Gateway developments. These areas are primarily occupied by medical services and personal services. Lincoln's existing office inventory appears to be in good to moderately good condition, with no visible signs of decay or deterioration.

Other Uses

The City also has an industrial base, totaling an estimated 4 million square feet of manufacturing, warehouse, and R&D/flex space. The non-retail commercial space within the proposed project has the greatest potential to include office, business professional, and service industry space, and not industrial space. Therefore, the City's industrial market has limited relevancy to the urban decay analysis. However, it is worth noting that most of Lincoln's existing industrial space is located near the Lincoln Regional Airport, which is a public use airport three miles west of the City. The proposed project is located to the south of the Airport, and thus can have strong synergy with this industrial base.

4.16.3 Relevant Plans, Policies, and Ordinances

City of Lincoln Municipal Code

City ordinances, such as the City of Lincoln Municipal Code of Ordinances Chapter 8.08 on Nuisance Abatement, Chapter 8.12 on Weed and Rubbish Abatement, Chapter 8.14 on Graffiti Abatement, Chapter 8.20 on Tire Storage, Chapter 8.44 on Trailer Coaches, and Chapter 9.40 on Camping on Public Property require property owners to maintain their properties so as not to create a nuisance by creating a condition that reduces property values and promotes blight and neighborhood deterioration. Enforcement of these ordinances can help prevent physical deterioration due to any long-term closures of retail spaces (City of Lincoln 2017). The City of Lincoln’s Code Enforcement Department is part of the Development Services Department and currently has one Code Enforcement Officer.

City of Lincoln General Plan

The Economic Development Element of the Lincoln General Plan provides goals and policies relevant to the urban decay analysis, including the following (Lincoln 2008a):

- Policy ED-1.5:** Regional Cooperation. The City will work cooperatively with other cities, Placer County, and other local and regional economic development entities to expand and improve the economic base of South Placer County, while addressing the potential for both local and regional urban decay resulting from new growth.
- Goal ED-2:** To coordinate long-term land use and infrastructure decisions with future economic development.
- Policy ED-2.1:** Utilize Specific Plans. The City shall utilize the specific planning process for future growth areas, which will allow the City to plan for long-term infrastructure needs and create large tracts of land that are attractive to developers.
- Goal ED-3:** To promote a diverse and balanced mix of employment and residential opportunities within the City.
- Goal ED-4:** To retain existing businesses and attract new businesses to provide jobs for current and future residents.
- Policy ED-4.1:** Increase Activity of Existing Businesses. The City shall support, stimulate, and foster increased activity of existing businesses within the community.

- Policy ED-4.2:** Identify Target Businesses and Industries. The City shall identify target businesses and industries that lead to a diversified economic base and provide for a higher quality of life for Lincoln residents.
- Policy ED-4.3:** Attract New Businesses. The City shall encourage new businesses to locate in the following areas: downtown Lincoln; along the future Highway 65 Bypass; at the Lincoln Regional Airport; and in the business park surrounding the airport.
- Policy ED-4.4:** Promote Assets. The City shall promote its growing labor force and availability of land as assets to attract new firms to the area.
- Policy ED-4.5:** Retail Market. The City shall identify a range of retail development sites and opportunities in order to promote a stronger local and regional retail market which meets the needs of the growing Lincoln population and complements the Lincoln downtown.
- Policy ED-4.6:** Regional Commercial. The City will reserve appropriately zoned property along the State Highway 65 Bypass for future regional commercial land uses such as a regional shopping center, auto mall, or other vehicle sales and services.
- Policy ED-6.8:** Urban Decay. The City recognizes and supports downtown retail development as part of the City's downtown revitalization strategy. The City also recognizes the importance of healthy neighborhood retail centers throughout the City to meet the shopping needs of Lincoln's population. As Specific Plans with retail and/or commercial land uses are submitted for approval, the City will analyze the potential for local urban decay and regional blight.

4.16.4 Thresholds of Significance

A significant impact related to urban decay would occur if the project would cause the potential for urban decay resulting from significant adverse physical impacts related to economic effects (CEQA Guidelines Section 15064(e), 15064(f)(6), and 15131). Urban decay is defined as physical deterioration to properties or structures that is so prevalent, substantial, and lasting for a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community.

4.16.5 Impacts Analysis

4.16.5.1 Methods of Analysis

To determine if the proposed project's retail and office uses would contribute to urban decay, ALH Economics uses a retail model that estimates retail spending potential for an area based

upon household counts, income, and consumer spending patterns. The model then computes the extent to which the area is or is not capturing this spending potential based upon taxable sales data published by the State of California Board of Equalization (BOE) or provided by local government municipal tax consultants. This analysis can be most readily conducted for cities, groupings of cities, or counties, consistent with the geographies reported by the BOE.

For any study area, retail categories in which spending by locals is not fully captured are called “leakage” categories, while retail categories in which more sales are captured than are generated by residents are called “attraction” categories. This type of study is generically called a retail demand, sales attraction, and spending leakage analysis. Generally, attraction categories signal particular strengths of a retail market while leakage categories signal particular weaknesses. ALH Economics’ model, as well as variations developed by other urban economic and real estate consultants, compares projected spending to actual sales.

There are two primary inputs for conducting this type of analysis. These include estimated retail sales for the market area and estimated retail demand generated by the area households. To develop the estimate of the City’s retail sales base, ALH Economics obtained taxable retail sales data for 1st Quarter 2013 through 4th Quarter 2013 as reported by the State Board of Equalization (BOE). Please see Appendix H for more specific details.

Before considering how the proposed project might affect the market and environs, it is useful to understand what constitutes urban decay and associated environmental effects. In *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1204, the court described the phenomenon as “a chain reaction of store closures and long-term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake.” The court also discussed prior case law that addressed the potential for large retail projects to cause “physical deterioration of [a] downtown area” or “a general deterioration of [a] downtown area.” (Id. at pp. 1206, 1207). When looking at the phenomenon of urban decay, it is also helpful to note economic impacts that do not constitute urban decay. For example, a vacant building is not urban decay, even if the building were to be vacant over a relatively long time. The analysis evaluates if there is sufficient market demand to support the project’s planned retail space and non-retail (office) space without affecting other retailers or office space so severely leading towards decay of the existing physical environment.

Timing Assumptions

Based on project buildout, development is anticipated to occur over a 10-year time period. The analysis assumes if the project is approved development would commence by 2017. Thus, the development horizon for the proposed project is assumed to be from 2017 to 2027, with 2027 comprising the buildout year. However, the project has not yet been approved and it is not

certain if this would occur in 2017 or 2018. Therefore, project buildout is assumed to occur either in 2027 or 2028, or thereabouts.

Cumulative Development

Project-based urban decay analyses also consider cumulative impacts associated with other planned and proposed projects. Cumulative projects include those that are under construction, approved for development, or engaged in the entitlements process. These are the type of projects that generally have a foreseeable expectation of being developed in the same timeframe as the project under study given knowledge and information about their development cycle status. Information about planned retail projects was obtained for Lincoln, as the core of the primary market area, and Marysville, Yuba City, and Rocklin comprising the secondary market area.

Pursuant to the City's General Plan land use designations and FAR assumptions, the buildout capacity in Lincoln and its Sphere of Influence is estimated at 2.7 million square feet of Neighborhood Commercial, 32.3 to 37.0 million square feet of Commercial (at the maximum FAR), 10.0 million square feet of Business Park, 27.0 million square feet of Industrial, and 36.2 million square feet of Industrial Planned Development. Applying the lower, more typical FAR for the Commercial land use, results in a maximum buildout estimate of 18.5 to 23.1 million square feet.

Retail Development

The City's current projects list was researched and staff were queried to identify other retail projects in the development pipeline. This includes projects located in Lincoln or the city's Sphere of Influence with approvals or environmental documentation under existing or imminent preparation. A summary of these projects is presented in Exhibit 32 of Appendix H.

There are 10 projects identified in Lincoln with prospective retail development by the years 2027 and 2042. Some of these projects are further along in the conceptualization process than others. For projects lacking specificity regarding the composition of the prospective commercial space an assumption that 60% of the square footage would comprise retail space while 40% would comprise office space was assumed, which is the same as the assumption for the proposed project.

Non-Retail/Office Development

The SACOG employment projections only go out to year 2035. For this reason, this was the cumulative year selected for the analysis of office development. The office demand projection estimates that office-using employment in 2035 in Placer County totals 84,700. Assuming the industry standard of 225 square feet per employee and a stabilized vacancy rate of 10%, an additional 3.0 million square feet of office space demand is projected between 2027 and 2035 in Placer County.

Appendix H includes information on office projects in various stages of development conceptualization (see Exhibit 40). These range from relatively small projects, such as the approved Lincoln Square project at the southeast corner of Highway 65 and Sterling Parkway with the assumed potential for about 24,000 square feet of office space, to relatively large projects, such as the Village 5 Specific Plan Phase 4A project adjacent to the proposed project with the assumed potential for approximately 1.4 million square feet of office space. The six cumulative development office projects are anticipated to be completed by 2042, which is beyond the time the project's office space is to be developed, but concurrent with buildout of other area development. These projects total 1.8 million square feet.

Other Primary Market Area Cumulative Development

The balance of the primary market area includes the community of Sheridan and the City of Wheatland. There are no known retail projects planned for the Sheridan area of Placer County. There are some pending and approved development projects in the City of Wheatland, but these comprise mostly residential projects. Other projects, such as the approved Johnson Rancho project with thousands of potential single-family residential units and multifamily residential units, include acreage designated for commercial. However, discussions with the City of Wheatland Planning Department suggest that any retail space that might be developed at Johnson Rancho would likely be local-serving. As such, the long-term retail demand projection for the City of Wheatland, and the portion of demand included in the analysis for the proposed project, is more regional-retail oriented, and thus any retail development included in identifiable projects currently known to the City of Wheatland would not comprise cumulative projects relative to the proposed project. There may be future potential for more regional-serving retail development in the City of Wheatland, depending upon the type and timing of future transportation improvements, but such development is speculative at present, and thus does not warrant consideration in this analysis.

Secondary Market Area Cumulative Development

Appendix H includes available information on planned retail projects in the secondary market area locations of Marysville, Yuba City, and Rocklin (see Exhibit 33). The total square footage of all secondary market area retail projects is 470,477 square feet.

4.16.5.2 Analysis

Impact 4.16-1. The project would not cause urban decay resulting from significant adverse physical impacts related to economic effects. (Less than Significant)

The proposed project's land use plan is intended to provide for a mixed-use village concept with a total population of 1,135 people based on the City's persons per household or 2.64. This land

use plan includes two key land use designations relevant to the urban decay analysis, Low Density Residential (LDR) and Commercial (C) uses. The analysis assumes the project's planned land uses include 430 low density residential units, including low and high purchase price single-family homes, and up to 971,000 square feet of commercial space based on the land use designations in the Specific Plan.

The proposed project's commercial space is assumed to be divided into retail and non-retail space, with the retail space comprising 60% of the space and the non-retail space comprising 40% of the space. Thus, the proposed project is assumed to have approximately 582,600 square feet of retail space and 388,400 square feet of non-retail space. Commercial uses would be located along the western boundary of the plan area along Nelson Lane and Nicolaus Road (Frayji 2016). Because the square footage of retail space is over 500,000 square feet, it meets the general definition of regional-serving retail.

The proposed project's non-retail space could comprise a mix of uses, including office, business professional, or service industry. As a most conservative approach, the analysis assumes this space would primarily be comprised of office space. This is a conservative assumption because the amount of Lincoln's existing office uses is limited. Thus, analyzing the space as office would allow for the maximum impact on existing conditions.

It is anticipated at project buildout there would be a total of 1,049 retail jobs and 1,165 non-retail commercial jobs (e.g., office, business professional, or service industry) for a total of 2,214 employees. These employment estimates are germane to the urban decay analysis because area employees are a frequent source of demand for retail sales.

Retail Analysis

Residential Retail Demand

A retail spending analysis, or demand analysis, was completed for the proposed project's residential households. This spending analysis takes into consideration the number of occupied housing units by type and pricing, average household income by type of housing unit, the percent of household income spent on retail goods, and prospective spending in the retail categories.

Based on the findings, it is estimated that future homeowners would spend between 31% to 33% of household income on retail purchases.

The Urban Decay Analysis took into account anticipated household incomes and retail spending, achievable retail sales performance and an allowance for vacancy, and determined that at project buildout future residents would be able to support approximately 30,000 square feet of retail space, the size of a small neighborhood-oriented shopping center.

Employment Retail Demand

At project buildout the proposed project would have an estimated employment base totaling approximately 2,214. These employees would generate demand for restaurant and retail purchases made before, during, and after work hours. These employees would patronize and support the project's retail sales in addition to project residents. Some of the area employees may live within the proposed project, and thus their retail sales may already be accounted for in the resident demand estimate, but others would not be a resident of the project. Average annual project employee-retail spending is estimated at \$7,500 for office workers and \$2,700 for retail workers (all figures rounded to the nearest \$100). These estimates and the composition of the estimates relative to spending on restaurants/fast food, groceries, and other spending are presented in Exhibit 11 of Appendix H. Estimates indicate the project's employment base is estimated to generate support for approximately 36,300 square feet of retail uses by project buildout.

Total Internal Project Retail Demand

The discussion above identified two general components that would patronize the project's retail space. These include residents living within the project and employees working at the retail businesses as well as in any office uses. It is assumed that project residents would shop at the project's retail space as well as other shopping locations within the City as well as outside the City boundaries. Therefore, the analysis conservatively assumes that the project's retail uses would capture only 50% of the project's resident retail demand. With sufficient retail shopping opportunities available, residents typically choose to make retail purchases closer to home, thereby minimizing associated travel time.

The proposed project is not anticipated to capture 100% of employment-generated demand for retail space. However, a percentage higher than the residential 50% share of demand is anticipated to be captured because employees have less time and opportunity to go shopping. Thus, it was assumed that the project's retail would capture 80% of employment-generated demand.

This analysis suggests that demand generated by residents and employees of the project would not be sufficient to support the total amount of commercial retail space planned at the proposed project. In order for the project's retail space to be viable it will need to be supported by other sources of demand, such as demand generated by other Lincoln households or more region-wide sources.

The results show that there is sufficient market area demand is projected for the project's retail space by project buildout. In addition, there would be additional unmet demand remaining to support development for an approximate additional 1.7 million square feet of space by 2027 and 2.9 million square feet by 2042 (ALH 2015).

Office Analysis

In addition to providing a new community for homes and retail-serving uses, the proposed project includes up to 388,400 square feet of non-retail space, including office, business professional, and service industry space. For the analysis, this space is analyzed as office space because most of the non-retail uses typically use office space.

Based on SACOG's employment projections, employment in Placer County is projected to increase by 19% between 2015 and 2027, or the time period coincident with the prospective office development at the proposed project. This reflects a 1.5% annual average growth rate. These growth figures indicate that the project's office space would be developed in a growth oriented environment (ALH 2015).

While Lincoln's existing office base is limited, the City of Lincoln has a long-term vision for Lincoln to become more of an employment center. Given existing land use designations, there is a great deal of potential for future office development from a land use perspective, totaling in the millions of square feet. The project's maximum office space buildout of 388,400 square feet would comprise a substantial addition to the City, however, this level of development is well within the City's future vision regarding office development and office-based employment growth.

Projected Office Demand

The office demand projection estimates that office-using employment in 2015 in Placer County totals 57,700. This figure is estimated to increase to 72,700 by 2027 and 84,700 by 2035, the last year for which employment is projected by SACOG. The County's office demand projection totals 3.75 million square feet of new demand between 2015 and 2027. An additional 3 million square feet of demand is projected between 2027 and 2035. In total, new office demand in Placer County between 2015 and 2035 is projected to total 6.75 million square feet to accommodate the projected growth.

While the County's projections for office demand is substantial, the projections for Lincoln are much more modest. For example, office employment in Lincoln is estimated at 2,100 in 2015. Based upon SACOG's projections, this level of employment is projected to increase to 3,600 by 2027 and to 5,300 by 2035. The amount of office space associated with this level of growth totals 375,000 square feet by 2027 and an additional 425,000 square feet by 2035, for a total of 800,000 net new square feet between 2015 and 2035. However, if growth occurs as projected by SACOG, Lincoln would need to substantially increase its share of the County's growth in order to meet these projections.

Urban Decay Implications of Retail Space

Owners of commercial retail properties are generally financially motivated to maintain property in a manner appropriate to retain existing tenants and attract new retail tenants. Based upon visual observation this appears to be the case in the City of Lincoln. If property owners lag in their maintenance, however, and the property begins to show signs of disrepair, the City has regulatory controls that can be implemented to avoid the onset of deterioration or decay (see Section 4.16.2, *Relevant Plans, Policies, and Ordinances*).

The project's demand analysis indicates that there would be a successful absorption of the project's retail space resulting in the need for additional market area demand remaining which could be satisfied by other regional-serving retail outlets. If this occurs, then development of the proposed project alone is not anticipated to negatively impact existing retailers to the extent that increased retail vacancy would occur, especially vacancy sustained over a long period of time. Accordingly, development of the proposed project is not anticipated to cause or contribute to urban decay and deterioration and the impact to existing retail uses in the City of Lincoln and the surrounding communities of Wheatland and Sheridan is **less than significant**.

Urban Decay Implications of Non-Retail Space

The City of Lincoln General Plan, prepared March 2008, anticipates a financially self-sustaining community of over 100,000 people, with supportive commercial and industrial development. Recognizing that the recession in 2007 through 2010 hampered growth in the City of Lincoln, the City's Economic Development Committee (EDC) prepared a "Strategic Economic Development Action Plan" in February 2013. The Action Plan was created to help guide the City as it grows and emerges from the recession. The following vision and mission stated in the plan notes:

Our Vision is to be the regional hub of economic growth for South Placer County. We will achieve this Vision through leveraging our physical and geographical assets, and our community's quality of life. We will build upon our historic downtown, the Regional Airport, in-place infrastructure, our transportation grid and our capacity for growth. Our economic Mission is to promote a strong economic environment that encourages business retention and expansion, and new commercial and industrial growth (City of Lincoln 2013).

The City would need to achieve this mission if the planned office projects, including the proposed project are developed and achieve occupancy. There is no local market precedent to support the development of this amount of space. However, the region as a whole is projected to require a substantial amount of new office space by 2035, close to but slightly beyond the anticipated timing of the project's non-retail commercial space (e.g., office, business professional, and service industry). The City would need to successfully leverage this demand to

support the potential amount of office space planned at the proposed project as well as other future projects. The degree to which the City can achieve this would depend upon the City's economic development efforts and the overall health of the regional economy.

If the City does not attract the number of businesses and amount of employment necessary to support the potential office space planned at the proposed project and future projects the most likely scenario is that these projects would be downscaled or delayed, as warranted by market conditions. Given the cost of new office construction, it is unlikely that such development would occur on a speculative basis. The existing office base in Lincoln is so small and centrally located that negative impacts on these properties to the point of resulting in urban decay and deterioration is unlikely and not foreseen. As newer office space is built, the older, smaller properties would continue to be attractive to small, price sensitive operations. Such properties would provide opportunities for new businesses to evolve and incubate, at which point growth could support relocation to some of the newer office space in Lincoln, enabling businesses to stay local while achieving business success. Therefore, the potential office space planned for the proposed project would not cause or contribute to office-related urban decay and the impact to office space is **less than significant**.

4.16.6 Mitigation Measures

No mitigation is required.

4.16.7 Level of Significance After Mitigation

No mitigation is required.

4.16.8 Cumulative Analysis

The geographic context to evaluate cumulative impacts is past, present and future retail and non-retail development in the City of Lincoln, as the core of the primary market area, and Marysville, Yuba City, and Rocklin comprising the secondary market area. More specific detail regarding cumulative assumptions is included above under 4.16.4.1, Methods of Analysis.

Impact 4.16-2. The project, combined with other cumulative development, would not result in a cumulatively considerable contribution to urban decay resulting in adverse physical impacts related to economic effects. (Less than Significant)

The City of Lincoln and its Sphere of Influence have a total estimated 3.1 million square feet of prospective retail development planned to be constructed by 2027/28, excluding the proposed project. Another 2.1 million square feet are anticipated to be complete by 2042 (i.e., excluding the portion of cumulative projects anticipated to be supported by tertiary market area demand).

The secondary market area including the Marysville and Yuba City areas has a total of 54,035 square feet of prospective competitive retail development. The secondary market area portion of Rocklin has a total of 181,204 square feet of prospective competitive retail development.

The supply and demand analyses relevant to analysis of the cumulative retail (including the proposed project) are consolidated and summarized in Exhibit 35 of Appendix H. Based on the employment generation assumptions and retail support figures estimated for the proposed project, the employees of the cumulative retail projects in Lincoln are estimated to generate support for about 57,800 square feet of retail space by 2042. Employees at Lincoln's cumulative office projects are estimated to generate another 127,700 square during a similar timeframe. Thus, the cumulative retail and office projects in Lincoln are estimated to generate support for 185,500 square feet of retail space to meet employee shopping needs.

The Urban Decay Analysis concluded that based on the cumulative projects with estimated completion dates similar to the proposed project and other Lincoln development timing, there would be sufficient demand to absorb the proposed project and the cumulative projects by 2027/28, when the project is estimated to be buildout. However, with the addition of projects with the anticipated buildout date of 2042, there is a projected deficit of approximately 219,000 square feet of demand by 2042. This means that there may not be sufficient demand to absorb up to 219,000 square feet of the planned primary and secondary market area retail supply.

It is anticipated the estimated deficit of 219,000-square-feet of retail uses could be more than offset by additional retail demand generated by accelerated full residential buildout of Lincoln, which was previously estimated to generate an additional demand for 540,000 square feet of retail space.

Even if the full estimated 219,000 square feet of vacancy occurs, however, the result on the retail market has the potential to be within the realm of reasonable market performance. If all cumulative retail developments and the proposed project are developed consistent with the study assumptions, the maximum effect coincident with the project's buildout year would be a 3.6% increase in Lincoln's retail vacancy rate, applied to all retail space built at that time. This amount of vacancy in itself is within the realm of market performance indicative of a healthy retail market. Thus, if the underlying vacancy rate at the time the project and all cumulative projects are developed is relatively low, there is no reason to anticipate that urban decay would result.

Additionally, the larger vacancies that have occurred in recent years backfill quickly, with new tenants operational within approximately one year. Thus, at least the current retail market in Lincoln has demonstrated resiliency and the ability to backfill vacant retail spaces. While the future retail market would have a very different composition and distribution of retail space, this

current performance is an indicator of the inherent ability of the Lincoln retail market to backfill vacancies and maintain properties in good physical condition.

In addition, the City's Municipal Code requires property owners to maintain their properties so as to avoid nuisances and by creating a condition that reduces property values and promotes blight and neighborhood deterioration. Enforcement of these ordinances can help prevent physical deterioration due to any long-term closures of retail spaces. If the City maintains a long-term commitment to code enforcement, with the requisite staffing, that code enforcement would continue to help ensure that urban decay does not occur in Lincoln.

If the City does not attract the number of office and businesses and amount of employment necessary to support the potential office space planned at the proposed project and the cumulative projects the most likely scenario is that these projects would be downsized or delayed, as warranted by market conditions. Given the cost of new office construction, it is unlikely that such development would occur on a speculative basis. The existing office base in Lincoln is so small and centrally located that negative impacts on these properties to the point of resulting in urban decay and deterioration is unlikely and not foreseen. As newer, better class space is built, the older, smaller properties would continue to be attractive to small, price sensitive operations. Such properties would provide opportunities for new businesses to evolve and incubate, at which point growth could support relocation to some of the newer office space in Lincoln, enabling businesses to stay local while achieving business success.

The effects of the proposed project, when considered with other cumulative development in the region, would result in a **less-than-significant** cumulative impact and the project would not make a cumulatively considerable contribution to urban decay impacts.

4.16.9 References

- ALH Urban & Regional Economics (ALH). 2015. *Lincoln Special Use District-B (SUD-B) Northeast Quadrant Plan Urban Decay Analysis*. July 2015.
- City of Lincoln. 2008a. *City of Lincoln General Plan*. Prepared by Mintier & Associates Planning Consultants and Matrix Design Group. March 2008.
- City of Lincoln. 2008b. *City of Lincoln General Plan Final Environmental Impact Report*. SCH no 2005112003. Prepared by ESA. February 2008.
- City of Lincoln. 2013. *Economic Development Committee 12 to 18 Month Strategic Action Plan for Economic Growth*. February 12, 2013.

City of Lincoln. 2017. Municipal Code: Title 8: Health and Safety. Accessed April 14, 2017 at https://www.municode.com/library/ca/lincoln/codes/code_of_ordinances?nodeId=TIT8HESA.

Frayji Design Group, Inc. 2016. *Special Use District B Northeast Quadrant Specific Plan*. Draft. Prepared for Peery–Arrillaga and Gill Property Development. December 2, 2016.

Placer County. 2015. *Sheridan Community Plan*. January 6, 2015.

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4.17 UTILITIES AND SERVICE SYSTEMS

This section describes the utilities and service systems present in the project area and evaluates the potential effects on utilities and service systems associated with development of the SUD-B Northeast Quadrant Specific Plan (proposed project).

Comments received in response to the Notice of Preparation (NOP, see Appendix A) included concerns regarding impacts on wastewater and water capacity. The Placer County Facility Services Department and the Western Placer Waste Management Authority requested that solid waste generation and capacity at the wastewater treatment and reclamation facility (WWTRF) and the Placer County Materials Recovery Facility (MRF) be analyzed.

This section incorporates information from the following sources:

- SB 610 Water Supply Assessment prepared by Tully & Young, Inc., January 2017 (Appendix I)
- Master Drainage Study, prepared by Frayji Design Group, Inc., November 9, 2016 (Appendix F)
- Sewer System Report, prepared by Frayji Design Group, Inc., December 5, 2016 (Appendix K)
- Potable Water Distribution Modeling Report, prepared by Frayji Design Group, Inc., December 5, 2016 (Appendix J)
- City of Lincoln 2015 Urban Water Management Plan, prepared by Tully & Young Inc. and approved by the City of Lincoln, July 2016

Other documentation used in this analysis included the City of Lincoln 2008 General Plan and General Plan Update Draft EIR. Other sources consulted are listed in Section 4.17.8, References.

4.17.1 Existing Conditions

This section describes the existing conditions in the project area and identifies the public utilities and services that could be affected by the proposed project.

4.17.1.1 Water

This section describes the existing and past water supplies and water demands within the City of Lincoln's service area. Projected water demand for the City of Lincoln (City) is also discussed.

City of Lincoln Water Supply

The City of Lincoln has relied upon a combination of groundwater and treated surface water, along with raw and recycled water supplies. Placer County Water Agency (PCWA) and Nevada Irrigation

District (NID) provide the City with raw and treated surface water (City of Lincoln 2016). Table 4.17-1 displays the contribution of groundwater and surface water to the City's water supply. Table 4.17-2 shows the amount of treated water supplied by PCWA and NID to the City of Lincoln.

Table 4.17-1
City of Lincoln Potable Water Supply by Source

Year	Groundwater from City	Surface Water from PCWA and NID	Total
<i>Supply (acre-feet)</i>			
2006	623	8,753	9,376
2007	924	9,396	10,320
2008	1,085	9,443	10,528
2009	836	9,326	10,162
2010	962	8,253	9,215
2011	2,686	6,795	9,481
2012	2,620	7,471	10,091
2013	1,113	9,745	10,858
2014	691	8,257	8,948
2015	707	6,922	7,629

Source: City of Lincoln 2015 Urban Water Management Plan

Table 4.17-2
City of Lincoln Potable Water Supply by Provider

Year	PCWA Supply (acre-feet)	NID Supply (acre-feet)
2006	6,940	1,813
2007	7,736	1,660
2008	7,779	1,664
2009	7,724	1,602
2010	6,772	1,481
2011	5,672	1,123
2012	6,173	1,298
2013	7,825	1,920
2014	6,617	1,640
2015	5,425	1,497

Source: City of Lincoln 2015 Urban Water Management Plan and City of Lincoln 2010 Urban Water Management Plan

Existing Water Supply

The City prepared an Urban Water Management Plan (UWMP) in July 2016 to outline current and future water supplies and demands and how they will be met. The City currently provides approximately 10,000 acre-feet of water per year to over 45,000 people in total treated water supplies (City of Lincoln 2016). PCWA and NID provide the City with treated surface water and raw water. The City also owns and operates five groundwater wells. The City continues to

purchase entitlements from PCWA and holds a contract with the agency that has been amended several times. The City is also supplied by NID water rights and entitlements. PCWA's water treatment and conveyance system currently supplies PCWA's and NID's treated water, as well as the City's groundwater, to the City of Lincoln.

The six existing water contracts and entitlements used within the City's service area are as follows:

- PCWA contract entitlement
- NID contract entitlement
- Groundwater rights
- Recycled water rights
- PCWA raw water entitlements
- NID raw water entitlements

PCWA Water Supplies

The contract that the City currently holds with the PCWA allows for:

- Maximum day Regulated Deliveries of 17,774,452 gallons per day (gpd), and
- Maximum day Unregulated Deliveries of 726,972.5 gpd.

Regulated water deliveries describe deliveries where the City uses its system operations to deliver potable water. Unregulated water deliveries are water deliveries where PCWA uses its system operations to manage water deliveries to the City. The City's water supply contract with PCWA allows for a total Maximum Delivery Entitlement of 18,501,424.5 gpd of treated surface water supply (City of Lincoln 2016). The City entered into an updated water supply contract with PCWA in 2012 that has a term of 20 years. This leaves 15 years on the current contract, after which it can be renewed for another 20-year period. PCWA provided the city with 5,425 acre-feet of water, approximately 4,843,134.2 gpd, in 2015.

PCWA's surface water supplies are obtained from water rights through the Middle Fork Project (MFP) which receives water from the North Fork of the American River and its tributaries, Central Valley Project from the American River, and water from the Yuba and Bear Rivers purchased from the Pacific Gas & Electric Company (PG&E). The available surface water supply owned by PCWA is displayed in Table 4.17-3.

Table 4.17-3
2017 Available Treated PCWA Water Supplies

Supply	Average/Normal (acre-feet/year)	Single Dry (acre-feet/year)
Pacific Gas & Electric	110,400	55,200
Middle Fork Project	120,000	80,400
Central Valley Project	32,000	16,000
Pre-1914	3,400	850
Total	265,800	152,450

Source: Tully & Young 2017

As shown in Table 4.17-3, PCWA's water supply is expected to be about 265,800 acre-feet of surface water during normal years and about 152,450 acre-feet of surface water during dry years. The City uses up to 36.5 acre-feet of raw water per year and about 10,000 acre-feet of potable water per year, on average (City of Lincoln 2016). The City obtains raw water from Caperton Canal through a 36.5 acre-feet per year raw water contract with PCWA.

The City's 2008 General Plan Update specifies that the City expects to obtain about 37,000 acre-feet per year of water from PCWA at build-out. PCWA's 2015 UWMP and MFP Permit renewal efforts show that it is likely that this quantity would be available at build-out of the General Plan, although the City's current contract with PCWA does not guarantee availability. PCWA's contract also allows the City to purchase additional water supplies beyond the set Maximum Delivery Entitlement.

NID Water Supplies

The contract that the City holds with NID is supplied by a variety of water rights that allow these sources to be reliable for current and future water deliveries. These water rights include pre-1914 appropriative water rights to waters in the Yuba River, Bear River and Dear Creek watersheds as well as post-1914 appropriative water rights. The total water supply that NID holds through these appropriative water rights accounts for approximately 450,000 acre-feet of water per year. NID also possesses a water supply contract with PG&E for about 54,000 acre-feet of water. The City is allowed to use approximately 12,000 acre-feet of NID's water supply under its contract with NID. This water supply is obtained as raw water from NID, and treated in PCWA's water treatment plants before being delivered to the City. Historically, the City has used as much as 1,920 acre-feet of water supplied by NID and NID provided the City with 1,497 acre-feet of water in 2015. Table 4.17-4 presents the average of NID's water supplies (Tully & Young 2017).

In September 2004, NID entered an agreement with PCWA and the City to temporarily provide raw water to PCWA for the City's water service area. NID will also provide water deliveries to NID customers and future development that would be annexed to the City. The actual amount of

water that would be supplied by NID has not been finalized, but NID’s 2015 Draft UWMP evaluates that water shortages would only occur in extremely dry years. However, in 2015, NID did not experience a water shortage despite it being California’s driest year in history, so it is unlikely that a water shortage would occur. It is estimated that by the year 2020, NID would no longer provide raw water for treatment by PCWA for delivery to the City, and instead provide treated water directly to the City.

Table 4.17-4
NID Water Supplies

Supply	Average/Normal (acre-feet/year)	Single Dry (acre-feet/year)
Watershed Runoff	221,500	221,500
Carryover Storage	201,985	129,400
PG&E Contract	54,361	8,000
Total	477,846	358,900

Source: City of Lincoln 2015 UWMP

In 2014 and 2015, the State Water Resources Control Board (SWRCB) mandated that surface water diversions from the American River, Yuba River, and Bear River watersheds under post-1914 appropriative water rights be stopped due to the drought. PCWA and NID were able to still supply water to meet the City’s demand as their reservoir storage facilities and system operations had ample water supplies available. The City generally only purchases and distributes water supplies to meet customer demand.

City of Lincoln Water Demand

Table 4.17-5 displays past water demands for the City of Lincoln. These water demands are from available records regarding water production, water sales, and water deliveries. As shown in the table, the City used 7,629 acre-feet of water in 2015. Table 4.17-6 summarizes the City’s 2015 water demand for each source of treated surface water supplies.

Table 4.17-5
City of Lincoln Water Demand

Year	Population	Water Demand (acre-feet)
2005	27,433	8,343
2006	33,619	9,376
2007	37,455	10,320
2008	39,636	10,522
2009	40,532	10,155
2010	42,819	9,203
2011	43,142	9,481
2012	43,915	10,091

**Table 4.17-5
City of Lincoln Water Demand**

Year	Population	Water Demand (acre-feet)
2013	44,336	10,858
2014	45,259	8,948
2015	45,837	7,629

Source: City of Lincoln 2015 UWMP

**Table 4.17-6
2015 City of Lincoln Water Demand**

Supplier	Water Demand (acre-feet)
PCWA	5,425
NID	1,497
City Groundwater	707
Total	7,629

Source: City of Lincoln 2015 UWMP

Water Treatment

Water treatment services are provided by PCWA. The Foothill Water Treatment Plant (WTP) and Sunset Water Treatment Plant (WTP) are used by PCWA to treat water for delivery. The Foothill Water Treatment Plant, located in southern Newcastle, was expanded in 2011, and has a capacity of 55 million gallons per day (mgd). The Sunset WTP has a capacity of 8 mgd and is located northwest of Loomis (City of Lincoln 2011). Both the Foothill and Sunset WTPs supply treated water to Lincoln. PCWA estimates that there is an additional 4.5 mgd of treatment and delivery capacity at these treatment plants (Tully & Young 2017).

In addition to the two existing plants, PCWA is designing a new water treatment facility to be located on Ophir Road in the Newcastle/Ophir area (City of Lincoln 2011). The build out timeline and capacity for this facility has not been determined at this time (PCWA 2016).

NID and the City are also in the planning process for a new water treatment plant near NID's Valley View site northeast of the City to provide treated NID and PCWA water to the City and its sphere of influence (SOI) (City of Lincoln 2016). The facility is expected to have a treatment capacity of 10 mgd and deliver about 5 mgd of treated water per year in total to the City and soft service areas within the NID boundary. The expected start date for operation was 2015. However, NID is still in the planning, design, engineering, environmental review, and permitting process and implementation is scheduled to begin in 2018 (NID 2016).

Water Distribution

PCWA supplies water to five zones with differentiated water supply characteristics. The City receives the majority of its water supply from the Lower Zone 1 Foothill-Sunset-Ophir (F-S-O) treated water system. The majority of the water supply is provided to F-S-O by the Bear River at Lake Spaulding and the American River at Auburn.

The City of Lincoln manages the water distribution system for water deliveries to the City from PCWA and NID. This system includes over 200 miles of pipelines, two gravity water storage tanks, and a booster pumping facility. Treated water from PCWA and NID enters the City's water distribution system through two meters by the PCWA hydroelectric generation station in eastern Lincoln. These meters have a combined capacity of approximately 18.5 mgd (City of Lincoln 2016).

The City utilizes both a centralized and distributed supply for water transmission. PCWA meters feed into a high-elevation 5-million gallon City storage tank that then flows into a gravity system of pipelines. Transmission lines used by the City range between 20 inches to 30 inches in size. The distribution system consists of groundwater production wells in western Lincoln connected by a series of water supply mains ranging in size from 4 inches to 18 inches in size. (City of Lincoln 2016).

The City's current water distribution system on the project site connects to downtown Lincoln, east of the project site, and eventually feeds into the City's Reservoir 1, Refinery Point storage tank. This 12-inch waterline eventually connects to a 16-inch trunk line heading east in Nicolaus Road. Another connection to this 12'-inch waterline is with an 18'-inch trunk line at the Nicolaus Road/Nelson Lane intersection. This trunk line extends south along Nelson Lane to the project site's southern boundary adjacent to the State Highway 65 Bypass boundary. Extension of this line to the south of the Specific Plan area is planned in the City's Preliminary Master Water Plan and would be constructed by others in the future.

Projected Water Demands

The SUD-B NEQ Water Supply Assessment (WSA), included as Appendix E, includes an analysis of current and future water demands within the City of Lincoln. The water use habits of existing customers, expected decrease in water usage due to conservation efforts, land use plans providing data for expected growth, and laws and regulations that affect future water use were used to calculate future water demands. The analysis also considers approved (but not completed) projects, proposed projects, and future areas that are proposed to be annexed into the City and growth in the City's SOI. Table 4.17-7 shows details for projected water demand in the City of Lincoln. The project's water demand is included in the demand estimate beginning in 2020.

Table 4.17-7
City of Lincoln Projected Water Demand

Year	Annual Water Demand (acre-feet/year)
Current (2017)	10,174
2020	12,431
2025	13,728
2030	15,553
2035	17,344
2040	20,542

Source: Tully & Young 2017

Projected Water Supplies

Projected water demands would be met by treated surface water supply provided by PCWA and NID. The project was already included in the City's adopted 2050 General Plan (General Plan). As such, the General Plan expects that projected water supplies are able to provide for the proposed project's water demands. The General Plan estimates that the ultimate build-out population would be approximately 131,000 and the water demand would be as high as 37,000 acre-feet. A revised and updated demand and supply analysis was completed in 2016 for the 2050 General Plan in the City's 2015 UWMP (City of Lincoln 2016). This report shows that PCWA deliveries, NID surface supplies, and City groundwater and recycled water assets would provide adequate water supplies to meet the City's water demands through 2050 (City of Lincoln 2016).

PCWA would provide the primary source of treated water supply to the City. As noted above, the City would need approximately 37,000 acre-feet per year of water supply to meet its expected water demands at full build-out. PCWA states in its 2015 demand and supply analysis that 37,000 acre-feet per year of water supply would be available to the City in normal water years. NID would also provide up to 12,000 acre-feet of treated water during normal years. Table 4.17-8 presents projected normal-year water supplies from various sources (City of Lincoln 2016).

Table 4.17-8
Projected Normal-Year Water Supplies

Year	PCWA Supply (acre-feet/year)	NID Supply (acre-feet/year)	Recycled Water Supply (acre-feet/year)	Groundwater (acre-feet/year)	Total Supply (acre-feet/year)	Anticipated Supply Acquired (acre-feet/year)
2020	13,239	12,000	3,300	2,854	31,393	11,192
2025	15,421	12,000	3,748	3,117	34,286	12,710
2030	18,335	12,000	4,381	3,472	38,188	14,859
2035	21,187	12,000	5,015	3,820	42,022	17,007
2040	25,533	12,000	6,063	4,360	47,955	20,561

Source: City of Lincoln 2015 UWMP

Groundwater

The groundwater basin applicable to the project site is the Central Valley Groundwater Basin, which contains about 114 million acre-feet of water (City of Lincoln 2016). This large basin is further divided into the Sacramento Valley Groundwater Basin, and the North American Groundwater Subbasin (Subbasin), which lies under the City. The Subbasin, also referred to as Basin No. 5-21.64 by the California Department of Water Resources, is the primary groundwater source for the City, possessing 4.9 million acre-feet of water (City of Lincoln 2016). The City of Lincoln maintains five active groundwater wells that have a combined capacity of about 3 mgd (City of Lincoln 2016). Although the City does not need to rely on this groundwater due to adequate surface water supply from PCWA and NID, the wells have the potential to provide over 30% of water demand in the case of daily shortages, to manage peak flows, and to provide emergency backup. The City has established the objective to use groundwater supply for no more than 10% of its total water demands during normal years. It is expected that demands on groundwater supply would increase as urbanization occurs, but the reduction in agricultural groundwater pumping would eventually cancel out any potential impact (City of Lincoln 2016). Table 4.17-9 includes data for the City of Lincoln's past and projected groundwater usage.

Table 4.17-9
City of Lincoln Past and Projected Groundwater Pumping

Historic	
<i>Year</i>	<i>Annual Water Demand (Acre-Feet)</i>
2008	1,085
2009	836
2010	962
2011	2,686
2012	2,620
2013	1,113
2014	691
2015	707
Projected	
<i>Year</i>	<i>Annual Water Demand (Acre-Feet)</i>
2020	1,119
2025	1,271
2030	1,486
2035	1,701
2040	2,056

Source: City of Lincoln 2015 UWMP

Recycled Water

The City's Wastewater Treatment and Reclamation Facility (WWTRF) has the capacity to produce recycled water that meets Department of Public Health and the State Resources Water Quality Control Board standards set forth in Title 22 for unrestricted reuse, meaning this recycled water can be used for agricultural and landscape irrigation, and for industrial/commercial applications. Recycled (or reclaimed) water is projected to supply as much as 6,822 acre-feet per year of the total expected build-out water demand. The current design average daily dry weather flow capacity of the WWTRF is 5.9 mgd. This is an increase in capacity from the previous 4.2 mgd capacity that has resulted from recent WWTRF expansions and upgrades. The City's Recycled Water Master Plan includes plans for significant infrastructure to be built to support delivery of treated wastewater in the City (City of Lincoln 2016).

Reclaimed water is expected to be available to the project site from a waterline to be constructed by the City in the future. When this water supply is available, the proposed project could use reclaimed water for uses such as landscape irrigation in parks and along roadways, and for commercial uses (cooling, washing, and other process uses). In order to facilitate a simple transition, irrigation systems could be designed in compliance with the City's reclaimed water standards at the time of installation.

Raw Water

Raw water is supplied by PCWA for irrigation purposes in the City. This untreated water is supplied through Caperton Canal and accounts for approximately 36.5 acre-feet per year (32,586 gpd) of the City's raw water supply. Both PCWA and NID also supply raw water directly to customers within the City through separate water supply agreements. NID serves a few customers in the City's boundary and SOI from its Hemphill Canal and Lincoln Canal, including the Turkey Creek Golf course north of Highway 193, a church, and a Del Webb Golf Course south of Highway 193 and the Auburn Ravine. PCWA raw water customers include the Twelve Bridges Golf Course and Del Webb Golf Course (City of Lincoln 2016).

4.17.1.2 Wastewater

Wastewater from the City and from portions of Placer County is treated at the City's WWTRF, located southwest of the City on Fiddymont Road, approximately 1.5 miles southwest of the project site. The WWTRF is a public-private partnership between the City and private developers, with a current permitted capacity of 3.3 mgd and expansion capacity up to 30 mgd for buildout of the City through 2050 (City of Lincoln 2015). The WWTRF has a structural capacity of 4.2 mgd, which exceeds its current permitted capacity. The facility is fitted with an influent pump station, oxidation ditches, secondary clarifiers, hard works screening and flow measurement, maturation pond, dissolved air flotation separators, ultraviolet light disinfection

systems, effluent re-aeration and pumping, and a pipeline that leads to an outfall in Auburn Ravine. The WWTRF also includes effluent and emergency storage and land disposal fields.

Placer County and the City of Lincoln are currently collaborating on the Midwestern Placer Regional Sewer Project, which would consolidate wastewater treatment for the County's Sewer Maintenance District No. 1 and the City of Lincoln (Midwestern Placer Regional Sewer Project 2015). With the addition of regional services, the WWTRF could potentially produce approximately 25,000 acre-feet of reclaimed water per year (City of Lincoln 2015)

Existing trunk sewer lines are located just southeast of the proposed project site along Nicolaus Road. The project site would be served by two sewer lines, a 10-inch sewer line in Nicolaus Road, and a 36-inch trunk sewer south of Douglas Drive. The 10-inch sewer line flows east into a manhole then connects to the existing Nicolaus Road Lift Station, approximately 0.5 of a mile east of the Nelson Lane/Nicolaus Road intersection, via an existing 18-inch sewer line. The Nicolaus Road Lift Station feeds into a series of force mains, pump stations, and gravity lines, which lead to the existing 36-inch trunk line in Douglas Drive. This trunk line flows south under Auburn Ravine, and ultimately connects to the WWTRF. In addition, the City's General Plan calls for construction of a trunk line along Nelson Road, which could serve the project site once the line is connected to the WWTRF.

4.17.1.3 Storm Water Drainage

Under existing conditions, stormwater that is not infiltrated into the soil moves as sheet flow across the project site towards Markham and Auburn Ravines, as well as to the west of the site. No storm drain infrastructure exists within the project site. Runoff from the eastern parcel of the Peery Arrillaga Property (approximately 34 acres) flows toward Auburn Ravine, and runoff from the Gill Property and the western parcel of the Peery Arrillaga Property (approximately 164 acres) flows toward Markham Ravine (or to the west and eventually to Markham Ravine). Auburn Ravine, a perennial stream, crosses the southeastern end of the project site and then under State Route 65 (SR-65). The portion of Auburn Ravine within the project site flows year-round due to supplemental waters added by NID, which are delivered to downstream agricultural users. Adjacent to Auburn Ravine is a basin that was previously used as storage for irrigation waters for use on site and empties into Auburn Ravine through an existing 12-inch drainage pipe. The 12-inch drainage pipe was placed by Caltrans when the SR-65 bypass was constructed to drain the storage pond and it has a one-way flapper valve on the downstream side to prevent high flows from backing up into the basin.

Markham Ravine, an intermittent stream, crosses under Nicolaus Road, through the northern portion of the project site and then west under Nelson Lane. A portion of the existing drainage flows west from the project site and crosses under Nelson Lane through culvert crossings and

several poorly defined channels to meet at SR-65 approximately half a mile west of the project site. The proposed Lewis home residential site north and west of the project site also flows north into Markham Ravine and through the north side of this project site.

The northern portion of the project site is presently supported by two outfall pipes that flow directly into Markham Ravine. A major outfall system, the only existing trunk drainage on the site, allows flows into Markham Ravine and directs water away from existing residential areas west of the project site. A second group of outfalls on Markham Ravine is south of the project site and flows into the Caltrans SR-65 right-of-way. Existing outfalls within this group include a 12-inch Corrugated Metal Pipe (CMP) and an 18-inch Reinforced Concrete Pipe (RCP). An existing drainage ditch is located north of SR-65, through which flows continue for approximately one mile before entering Markham Ravine. A third group of outfalls on Markham Ravine consists of existing culverts along and under Nelson Lane.

Drainage to the west of the project site flows into an existing drainage ditch in the center median of Nelson Lane and eventually into Markham Ravine. SR-65 drainage channels to the south of the project site carry drainage from the south of the site west into Markham Ravine. Nicolaus Road currently drains into existing ditches along the frontage of the road and then flows south into Markham Ravine.

4.17.1.4 Solid Waste

The Western Placer Waste Management Authority (WPWMA) is a regional agency that provides recycling and waste disposal services to Placer County and the Cities of Roseville, Rocklin, and Lincoln. Solid waste is collected in the City and other areas of Western Placer County in City-provided 90-gallon cans at curbside and is first processed at the WPWMA Material Recovery Facility (MRF) located on the WPWMA's 315.9-acre Western Regional Sanitary Landfill (WRSL) near the intersection of Athens Avenue and Fiddymment Road. The MRF recovers, processes, and markets recyclable materials from the waste stream and processes green waste and electronics. Residual waste from the MRF is then transported to the WRSL, which is a Class II/Class III non-hazardous site. Hazardous waste from households is accepted at the Permanent Household Hazardous Waste Collection Facility (PHHWCF), located next to the MRF. WPWMA owns and oversees all of these facilities, which are located on Fiddymment Road, approximately 3.3 miles southwest of the project site.

The WRSL is permitted to accept 1,900 tons per day and 624 vehicles per day; in 2013, the WRSL received an average of 638 tons per weekday and 86 vehicles per day (Placer County Facility Services Department 2015). The landfill has a permitted design capacity of 36,350,000 cubic yards and, as of July 2014, had a remaining capacity of 25,386,466 cubic yards (70% remaining capacity), with a permitted lifespan extending to 2058 (Placer County Facility Services Department 2015).

The MRF has a permitted processing capacity of 1,750 tons per day and 1,014 vehicles per day; in 2014, the MRF received an average of 1,116 tons per weekday and 588 vehicles. The MRF has a permitted processing capacity of 2,200 tons per day for municipal solid waste and construction and demolition debris; the compost portion of the MRF has a permitted processing capacity of 75,000 cubic yards (37,500 tons) and a design capacity of approximately 164,000 cubic yards (82,000 tons) (Placer County Facility Services Department 2015).

The MRF typically diverts approximately 30% of the waste it receives, which does not include additional recyclables received and diverted via the facility's buy-back center, drop-off center, compost facility, and landfill diversion (inert waste and construction/demolition waste). The MRF achieved an overall diversion rate of over 42% in 2014 (Placer County Facility Services Department 2015).

4.17.1.5 Energy

Pacific Gas & Electric (PG&E) provides electrical and natural gas service to the project area (City of Lincoln 2015). The City's electricity is provided via a 60-kilovolt transmission line to the Lincoln Substation, where it is then directed throughout the City via 12-kilovolt lines. Natural gas is delivered to the Lincoln Junction Station via major gas transmission lines, after which it is transported via a six-inch transmission line to the Lincoln Meter. From the Lincoln Meter, natural gas is delivered to residents through a citywide network of two and four-inch distribution lines (City of Lincoln 2008b).

4.17.2 Relevant Plans, Policies, and Ordinances

Federal

The following federal regulations pertaining to utilities and service systems would apply to the proposed project.

Water

Federal Water Pollution Control Act

The Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), otherwise known as the Clean Water Act (CWA), sets forth national goals that waters shall be "fishable, swimmable" waters (CWA Section 101 (a)(2)). To enforce the goals of the CWA, the U.S. Environmental Protection Agency (U.S. EPA) established the National Pollutant Discharge Elimination System (NPDES) program. NPDES is a national program for regulating and administering permits for discharges to receiving waters, including non-point sources. Under Section 1251 (b) of the CWA, Congress and the U.S. EPA must recognize and preserve the primary responsibilities and rights of states concerning the reduction of pollution in water resources.

Safe Drinking Water Act

The Safe Drinking Water Act of 1974 gave the U.S. EPA the authority to set standards for contaminants in drinking water supplies. The U.S. EPA was required to establish primary regulations for the control of contaminants that affected public health and secondary regulations for compounds that affect the taste, odor, and aesthetics of drinking water. Title 22 of the California Administrative Code establishes Department of Public Health and SRWQCB implementing authority, and stipulates state drinking water quality and monitoring standards.

Wastewater***National Pollution Discharge Elimination System Permit***

Discharge of treated wastewater to surface water(s) of the United States, including wetlands, requires a NPDES permit. In California, the Regional Water Quality Control Boards (RWQCB) administer the issuance of these federal permits. Obtaining an NPDES permit requires preparation of detailed information, including characterization of wastewater sources, treatment processes, and effluent quality. Whether or not a permit may be issued, the conditions of a permit are subject to many factors such as basin plan water quality objectives, impaired water body status of the receiving water, historical flow rates of the receiving water, effluent quality and flow, the air quality State Implementation Plan (SIP), the California Toxics Rule, and established total maximum daily loading rates for various pollutants. These factors are highly specific to the potential discharge point. Obtaining an NPDES permit is generally considered difficult in inland areas and may not be possible in sensitive areas.

Federal and State Clean Water Act

The Porter–Cologne Water Quality Control Act gives the ultimate authority over California water rights and water quality policy to the California State Water Resource Control Board (SWRCB). The Porter–Cologne Act also established nine RWQCBs to ensure that water quality on local/regional levels is maintained. The subject property is under the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB).

U.S. Environmental Protection Agency’s National Combined Sewer Overflow Control Policy

The Combined Sewer Overflow (CSO) Control Policy establishes a consistent national approach for controlling discharges from the CSOs to the nation’s waters through the NPDES permit program. The CSO Control Policy mandates that permittees with CSOs should submit appropriate documentation demonstrating implementation of the nine minimum controls, which consist of:

- Proper operation and regular maintenance programs for the sewer system and the CSOs;
- Maximum use of the collection system for storage;
- Review and modification of pretreatment requirements to assure CSO impacts are minimized;

- Maximization of flow to the publicly owned treatment works for treatment;
- Prohibition of CSOs during dry weather;
- Control of solid and floatable materials in CSOs;
- Pollution prevention;
- Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts; and
- Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

Stormwater

Clean Water Act

The Clean Water Act (CWA), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality (33 U.S.C. 1251 et seq.). The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” The CWA establishes basic guidelines for regulating discharges of both point and non-point sources¹ of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA. See Section 4.9.2.1, Hydrology and Water Quality, for a detailed discussion of federal stormwater regulations.

Federal Antidegradation Policy

The federal antidegradation policy (40 CFR §131.12) of the federal CWA is designed to protect water quality and water resources. The policy requires states to develop statewide antidegradation policies and identify methods for implementing them. State antidegradation policies and implementation measures much include the following provisions: (1) existing instream uses and the water quality necessary to protect those uses shall be maintained and protected; (2) where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and (3) where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected. State permitting actions must be consistent with the federal Antidegradation Policy. See Section 4.9.2.1, Hydrology and Water Quality, for a detailed discussion of federal stormwater regulations.

¹ Point source discharges are those emanating from a pipe or discrete location/process, such as an industrial process or wastewater discharge. Non-point source pollutants are those that originate from numerous diffuse sources and land uses, and which can accumulate in stormwater runoff or in groundwater.

Solid Waste

Resource Conservation and Recovery Act, Subtitle D

Code of Federal Regulations, Volume 40, Part 258 (Resource Conservation and Recovery Act, Subtitle D) states criteria for the location, operation, design, monitoring, and closure of municipal solid waste landfills. The code requires states to conduct their own permitting program for landfills that follow this criteria.

Electricity and Natural Gas

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) regulates and oversees the energy industries in the interests of the American public. The Energy Policy Act of 2005 gave FERC additional responsibilities including interstate commerce, licenses and inspections, energy markets, and penalizing energy organizers and individuals who violate FERC rules in the energy markets.

State

Water

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Porter–Cologne) gives the ultimate authority over California water rights and water quality policy to the California SWRCB. Porter–Cologne also established nine RWQCBs to ensure that water quality on local/regional levels is maintained. The subject property is under the jurisdiction of the CVRWQCB.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 AFY shall prepare and adopt a UWMP. Water suppliers are to prepare a UWMP within a year of becoming an urban water supplier and update the plan at least once every 5 years. The act also specifies the content that is to be included in an UWMP. It is the intention of the legislature to permit levels of water management planning commensurate with the number of customers served and the volume of water supplied. The act states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. The act also states that the management of urban water demands and the efficient use of water shall be actively pursued to

protect both the people of the state and their water resources. The City's 2015 UWMP indicates that the daily per capita water use target for 2020 is 193 gallons per capita/day (gpcd) and the interim 2015 target is 217 gpcd (City of Lincoln 2016).

Drinking Water Quality

It is the responsibility of the SWRCB and the Department of Public Health to implement the Federal Safe Drinking Water Act, as well as California statutes and regulations related to drinking water. SWRCB inspects and provides regulatory oversight to public water systems within California, to ensure their compliance. The CVRWQCB protects the beneficial uses, including municipal drinking water supply, of state waters in the Sacramento area.

In accordance with Title 22 of the California Code of Regulations, public water system operators regularly monitor their drinking water sources for microbiological, chemical, radiological, and aesthetic contaminants to ensure that they do not exceed the primary maximum contaminant levels. The amount of contaminants in drinking water needs to be disclosed to the public annually, by the water supplier, in a consumer confidence report. It is the responsibility of the water supplier to produce and distribute the report and the responsibility of the U.S. EPA to prepare annual summary reports of water system compliance.

Water Supply Availability

In 2003, Senate Bill (SB) 610 and SB 221 were signed into law by Governor Gray Davis. These laws intend to coordinate local land use and water supply planning. Under SB 221, an affirmative written verification of sufficient water supply is required for approval by a city or county of certain residential subdivisions during the tentative map stage. SB 221 applies to a proposed residential development of over 500 dwelling units, except that for a public water system with less than 5,000 service connections, which would account for an increase of 10% or more in the number of the public water system's existing service connections. SB 610 requires each public water system that would supply water to a proposed project to determine whether the projected water demand associated with the proposed project could be met when existing and planned future uses are considered. For the purposes of SB 610, Water Code Section 10912 (a)(2) requires all projects with a water demand equivalent to 500 or more dwelling units, or which include over 250,000 square feet of commercial office building, over 500,000 square feet of commercial shopping center, or a combination thereof, to obtain a WSA. In addition, SB 610 requires a quantification of water received by the water provider (City of Lincoln) in prior years from water rights, water supply entitlements, and water service contracts. Because the proposed project would include 971,000 square feet of commercial space and 430 dwelling units, the project applicant has prepared a WSA, which is included as Appendix E of this document.

Wastewater

General Waste Discharge Requirements for Sanitary Sewer Systems

The General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems were adopted by the SWRCB in May 2006. These WDRs require local jurisdictions to develop a sewer system management plan (SSMP) that addresses the necessary operation and emergency response plans to reduce sanitary sewer overflows. The WDRs require that the local jurisdiction approve the SSMP.

Stormwater

General NPDES Permits and WDRs

To enable efficient permitting under both the CWA and the Porter–Cologne Act, the SWRCB and the RWQCBs run permit programs that group similar types of activities that have similar threats to water quality. These “general permit” programs include the Phase II Small Municipal Separate Storm Sewer System (MS4)² Permit, the construction general permit, and other general permits for low-threat discharges. The Construction Stormwater Program and the Small MS4 Permit are administered by the SWRCB, while other general WDRs are administered by the CVRWQCB. Point source discharges or other activities that threaten water quality that are not covered under a general permit must seek individual NPDES permits and/or WDRs, depending on the type, location and destination of the discharge. For these types of discharges, the initial step in the process is to submit a “Report of Waste Discharge” to the CVRWQCB, who then determines the appropriate permitting pathway. See Section 4.9.2.2, Hydrology and Water Quality, for a detailed discussion of state stormwater regulations.

California Sustainable Groundwater Act

The Sustainable Groundwater Management Act (SGMA) is a package of three bills (AB 1739, Senate Bill (SB) 1168, and SB 1319) that provides local agencies with a framework for managing groundwater basins in a sustainable manner. The SGMA establishes minimum standards for sustainable groundwater management, roles and responsibilities for local agencies that manage groundwater resources, as well as priorities and timelines to achieve sustainable groundwater management within 20 years of adoption of a Groundwater Sustainability Plan. Central to the SGMA is the identification of critically over-drafted basins and the prioritization of groundwater basins, the establishment of Groundwater Sustainability Agencies (GSAs), and the preparation and implementation of Groundwater Sustainability Plans (GSPs) for medium priority, high priority and critically overdrafted basins. GSAs must be formed by June 30, 2017;

² A small MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that serve populations of fewer than 100,000 persons.

and GSPs must consider all beneficial uses and users of groundwater in the basin, as well as include measureable objectives and interim milestones that ensure basin sustainability. A basin may be managed by a single GSP or multiple coordinated GSPs. See Section 4.9.2.2, Hydrology and Water Quality, for a detailed discussion of state stormwater regulations.

Solid Waste

California Integrated Waste Management Act—AB 939

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25% of all solid waste from landfill facilities by January 1, 1995, and 50% by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within the respective county plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to \$10,000–per-day fines.

Mandatory Commercial Recycling—AB 341

AB 341 was adopted as part of the AB 32 Scoping Plan by the Air Resources Board pursuant to the California Global Warming Solutions Act on January 17, 2012. The regulation requires businesses that generate 4 cubic yards or more of commercial solid waste per week and multifamily residential dwellings of five units or more to arrange for recycling services. The measure focuses on increasing commercial waste diversion to reduce greenhouse gas emissions.

Mandatory Commercial Organics Recycling—AB 1826

AB 1826 was enacted in October 2014 in order to divert commercial organic waste from landfills. The measure requires businesses and multifamily residential dwellings of five or more units to recycle organic waste on and after April 1, 2016 depending on how much solid waste they generate per week. The law includes phasing of requirements over time to ensure that the minimum threshold of organic waste generation by businesses decreases gradually.

Energy

California Energy Commission

The California Energy Commission (CEC) is the state's primary energy policy and planning agency. Created by the Legislature in 1974, the CEC has seven major responsibilities: advancing state energy policy through identifying and assessing major statewide energy trends and issues;

achieving energy efficiency through setting and updating California’s building and appliance energy appliance standards; certifying thermal power plants 50 megawatts and larger; investing in energy innovation; promoting the development and deployment of low-carbon alternative fuels and advanced vehicle technologies; developing renewable energy; and planning for and directing state response to energy emergencies (CEC 2015a). The Warren–Alquist Act gives statutory authority over energy resources to the CEC (CEC 2015b).

California Public Utilities Commission

The CPUC regulates privately owned electric, telecommunications, natural gas, water, and transportation companies, in addition to household goods movers and rail safety. The CPUC is responsible for ensuring that customers have safe, reliable utility service at reasonable rates, protecting against fraud and promoting the health of California’s economy (CPUC 2015).

California’s Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24 Building Standards)

The CEC administers Title 24 Building Standards, which were established in 1978 in response to a legislative mandate to reduce California’s energy consumption. Standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. California’s building efficiency standards are updated on an approximately 3-year cycle. The 2016 Standards improved upon the 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2016 Standards went into effect on January 1, 2017, following approval of the California Building Standards Commission (CEC 2017)

Local

City of Lincoln General Plan

The Public Facilities and Services Element of the Lincoln General Plan provides objectives, policies, and programs regarding Utilities and Service Systems, including the following:

General

Policy PFS-1.1 The City shall ensure the provision of adequate public services and facilities to the existing areas of the city and to ensure that new development is served by a full range of public services.

Policy PFS-1.3 During the development review process, the City shall not approve new development unless the following conditions are met:

- The applicant can demonstrate that all necessary infrastructure will be installed or adequately financed;
- Infrastructure improvements are consistent with City infrastructure plans; and
- Infrastructure improvements incorporate a range of feasible measures that can be implemented to reduce public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required improvement.

Policy PFS-2.13 The City may allow use of connection fees for improving and upgrading off-site facilities as appropriate and to support the overall system integrity necessary to serve the new development.

Water

Policy PFS-1.4 The City shall comply with the requirements of the Clean Water Act and other regulations with the intent of minimizing the discharge of pollutants to surface waters.

Policy PFS-2.1 The City shall develop a long-term reliable supply of water that will permit the city to meet the existing and future demands of development.

Policy PFS-2.2 The City shall continue to operate the City-owned water storage and distribution systems.

Policy PFS-2.3 The City shall require the availability of an adequate water supply to be demonstrated before approving new development.

Policy PFS-2.4 The City shall require the use of reclaimed water by industrial, commercial, recreational users and roadway landscaping, whenever it is deemed feasible by the City. The City will also promote the use of reclaimed water by surrounding agricultural users as part of a water conservation program.

Policy PFS-2.5 The City shall not allow development within newly annexed areas until a potable water supply is obtained through Placer County Water Agency (PCWA) or Nevada Irrigation District (NID) or, where appropriate, other water districts.

Policy PFS-2.6 The City shall coordinate development activity with the PCWA and NID to ensure adequate provision of treated water supplied by either supplier.

Policy PFS-2.7 The City shall consider development of groundwater supplies in the western portions of the City’s sphere of influence to provide emergency back up and to supplement the domestic supply provided by the PCWA and NID.

Policy PFS-2.9 The City shall condition new development on availability of storage that meets the following parameters:

- Equalizing Storage (for meeting peak flows) - 25% of maximum day demand.
- Fire Reserve - Provide fire reserve as required by the Insurance Services Office (ISO) or as required by the City Fire Chief and City Engineer.
- Emergency Reserve - 33% of the total of Equalizing Storage and Fire Reserve.

Policy PFS-2.10 The City shall provide water supply, storage and adequately-sized pipelines to provide fire flows at any point within the City to meet recommendations of the ISO and/or the City Fire Chief and City Engineer and maintain minimum pressures in accordance with requirements outlined in the California Department of Health Services / Waterworks Standards.

Policy PFS-2.14 The City shall require new development to be responsible for construction of water transmission and distribution lines less than 18 inches in diameter.

Provision will be made allowing reimbursement from Third Parties should such lines result in an “over-sizing” for a particular development.

Policy PFS-2.16 The City shall implement an active water conservation program to reduce future water demand to the extent allowed by law by establishing building requirements for new construction, providing educational information through local media sources, and establishing effective rate charges to encourage conservation.

Policy PFS-2.17 The City shall require new development to use the best available technologies (BAT) for water conservation, including, but not limited to water-conserving water closets, showerheads, faucets, and water conserving irrigation systems.

Policy PFS-2.18 The City shall require meters for all new water connections.

Policy OSC-4.3 The City shall ensure that new development projects do not degrade surface water and groundwater.

Policy OSC-4.5 The City shall encourage the use of reclaimed water, in place of treated potable water for landscaping and other suitable applications.

Wastewater

Policy PFS-3.1 The City shall continue to provide sanitary sewer services and operate public facilities in a manner that does not endanger the public's health, safety, and welfare. The City does not permit the use of package treatment plants to serve individual developments within the City.

Policy PFS-3.2 The City shall minimize wastewater flows through water conservation efforts.

Policy PFS-3.7 The City shall prohibit cross-connection of sanitary sewer and storm drain systems.

Policy PFS-3.8 The City shall require that collected wastewater be of a quality consistent with State Regional Water Quality Control Board standards or those adopted by the City of Lincoln in order to accommodate wastewater within the design parameters of the treatment plant. This may include the requirement for pretreatment of wastewater.

Policy PFS-3.9 The City shall approve connections to the City's existing sewer system and treatment plant on a first-come, first-served basis as secured through development agreements, building permits, or other financial agreements.

Policy PFS-3.10 The City shall require new development to be responsible for construction of all sanitary sewer lines serving such development. Provision will be made allowing reimbursement from Third Parties, or credits against City wastewater fees (as approved by the Director of Public Works) should such lines result in an "over-sizing" for a particular development.

Storm Drainage

Policy PFS-4.1 The City shall provide storm drainage facilities with sufficient capacity to protect the public and private property from storm water damage. The facilities will also be implemented in a manner that reduces all public safety and/or environmental impacts associated with the construction, operation, or maintenance of any required drainage improvements (i.e., drainage basins, etc.).

Policy PFS-4.2 The City shall encourage project designs that minimize drainage concentrations and impervious coverage and avoid floodplain areas and, where feasible, be designed to provide a natural water course appearance.

Policy PFS-4.3 The City shall manage drainage facilities in accordance with local, state, and federal guidelines.

Policy PFS-4.4 The City shall design stormwater detention basins to ensure public safety, to be visually unobtrusive and to provide temporary or permanent wildlife habitat values and where feasible, recreational uses.

Policy PFS-4.6 The City will require new development to provide storm-water detention sufficient to limit outflow per Figure 7-1 of the City's Stormwater Management Manual (February 1994), or as revised.

Master Drainage Plans shall be designed to require new development to provide, or contribute towards, stormwater detention to reduce post development peak flow from a 100 year event to pre-development flow rate less 10% of the difference between the estimated pre-development and the post-development unmitigated peak flow rates. The Master Drainage Plan shall identify appropriate locations to achieve such post development flows. This criterion is principally designed to address the 100-year event with appropriate consideration given for the feasibility of mitigating 2-year and 10-year events.

Policy PFS-4.7 The City shall require new development to provide stormwater-retention sufficient for the incremental runoff from an eight-day 100 year storm.

Policy PFS-4.8 The City shall require appropriate runoff control measures as part of future development proposals to minimize discharge of urban pollutants (such as oil and grease) into area drainages.

Policy PFS-4.10 The City shall require adequate provision of erosion control measures as part of new development to minimize sedimentation of streams and drainage channels.

Policy PFS-4.11 The City shall require drainage designs and practices to be in accordance with the Stormwater Management manual of the Placer County Flood Control District unless alternative methods are approved by the City Engineer.

Policy PFS-4.12 The City shall require that the cost to develop new or modify existing Drainage Management Plans be allocated to applicants proposing development within the City's Sphere of Influence.

Policy PFS-4.13 The City shall require City maintenance of detention basins with financing by a separate drainage or special assessment district. When private facilities are used for detention, maintenance will be privately financed.

Policy OSC-4.6 The City shall continue to require the use of feasible and practical best management practices

(BMPs) to protect surface water and groundwater from the adverse effects of construction activities and urban runoff. Additionally, The City shall require, as part of its Storm Water NPDES Permit and ordinances, to implement the Pollution Prevention Plan (SWPPP) during construction activities for any improvement projects, new development and redevelopment projects for reducing pollutants to the maximum extent practicable.

Policy HS-6.3 The City shall require master drainage plans as a condition of approval for large development projects.

Solid Waste

Policy PFS-5.1 The City shall require solid waste collection services for existing and new developments to ensure the maintenance of health standards.

Policy PFS-5.2 The City shall promote maximum use of solid waste reduction, recycling, and composting of wastes for a reduction in residential, commercial, and industrial waste disposal.

Policy PFS-5.3 The City shall encourage the recycling of construction debris.

Policy PFS-5.4 The City shall ensure that all new buildings and facilities have proper facilities for solid waste storage, handling, and collection pickup prior to issuance of building permits.

Policy PFS-5.6 The City shall discourage commercial/industrial land uses which generate large volumes of non-recyclable solid waste.

Policy PFS-5.7 The City shall cooperate with the Western Regional Landfill Authority to meet area-wide goals and objectives for waste reduction, recycling, and with preparation and implementation of landfill expansion plans.

Energy

Policy PFS-6.1 The City shall coordinate with gas and electricity providers for the planning of extension of gas and electrical facilities.

Policy PFS-6.2 The City shall require undergrounding of utility lines in new development, except where it is not feasible due to the electrical transmission load or other operational issues as confirmed by the utility provider.

Policy PFS-6.3 The City shall support the use of renewable energy sources, such as solar, in residential, commercial, and industrial developments.

City of Lincoln Municipal Code

The City of Lincoln has adopted the California Green Building Code (Part 11, Title 24 Building Standards) as Section 15.04.060 of the City's Municipal Code.

Section 8.60 – Post-Construction Storm Water Runoff Control

This City of Lincoln has adopted Chapter 8.6 of the Municipal Code, which pertains to post-construction storm water runoff control. It establishes the City's requirement to comply with the NPDES Permit for the City's storm sewer system (Small MS4 Permit), and establishes stormwater quality design, permitting, management and maintenance requirements for new development and redevelopment projects. The ordinance incorporates the requirement for the development and a storm water quality plan (SWQP) for regulated projects (including the proposed project), requires implementation of stormwater quality best management practices and low-impact development designs consistent with the City's Storm Water Management Plan, and establishes administrative review, approval and inspection authority over project-specific post-construction SWQPs. Design standards include performance criteria as outlined in the Small MS4 permits (described in greater detail above), including the requirement to not exceed pre-development discharge rates to the storm drain system and to minimize to the extent practicable discharge of pollutants to the storm drain system. The ordinance also requires project applicants to submit an operations and maintenance plan for approval by the city to outline how it intends to ensure the long-term functionality and effectiveness of storm water quality BMPs and low impact designs proposed in the SWQP.

Chapter 13.30 – Construction Storm Water Runoff Control

Section 13.30.100 requires development disturbing more than one acre to receive coverage under the SWRCB's current construction general permit. To obtain coverage under the permit, the applicant must prepare and submit a SWPPP to the City prior to issuance of a grading permit or encroachment permit. Section 13.30.100 also requires applicants to prepare an erosion and sedimentation control plan that identifies the BMPs that will be implemented throughout construction to control pollutant discharges. The erosion and sedimentation control plan must comply with the requirements of Municipal Code Chapter 13.30 as well as the City of Lincoln Department of Public Works' Design Criteria and Procedures Manual, and it must be prepared and submitted concurrently with the grading plan.

The erosion and sedimentation control plan identifies the receiving waters for the project, the project's risk level for stormwater pollutant discharge, drainage facility and BMP sizing

information, the quantity and locations of storm water run-on locations, and the location of discharge, sampling, and monitoring points. The rationale for selecting or rejecting BMPs, including soil loss calculations, must be included in the erosion and sedimentation control plan.

Section 15.04.200 – California Building Code, Appendix J Amended—Excavation and Grading

Section 15.04.200 adopts and amends the California Building Code standards for excavation and grading. The ordinance ensures that proper administrative and engineering practices are implemented to minimize on-site and off-site hazards associated with grading. The City requires projects performing any grading over ten cubic yards to obtain a grading permit from the City Engineer. This section requires adherence to the standards set forth in the City of Lincoln Department of Public Works’ Design Criteria and Procedures Manual.

Section 17.28.330 – Lot Drainage and Erosion Control

Section 17.28.330 stipulates that lots shall be graded to provide adequate drainage, and that erosion control measures must be implemented.

City of Lincoln Urban Water Management Plan

The City adopted its 2015 UWMP in July 2016 in accordance with the Urban Water Management Planning Act requirements. The UWMP addresses the current and future state of the City’s water supplies and demands for both normal- and dry-year conditions (City of Lincoln 2016). The plan also evaluates whether future demands will be adequately met by future available supplies and whether necessary water supplies will be available during dry year conditions. The 2015 UWMP states that the City supplies about 10,000 acre-feet of water per year at present to a population of over 45,000 (City of Lincoln 2016).

City of Lincoln Groundwater Management Plan

The City adopted a Groundwater Management Plan (GMP) in November 2003 to manage groundwater sources derived from the North American Subbasin of the Greater Sacramento Valley Groundwater Basin. The GMP established the following Basin Management Objectives: maintain groundwater elevations; preserve overall groundwater quality; and maintain the southwesterly direction of groundwater flow. This GMP was expanded upon in 2006 with the establishment of the Western Placer County Groundwater Management Plan (Tully & Young 2016). Both groundwater management plans show that groundwater conditions beneath the City and its SOI have remained stable (Tully & Young 2016).

Western Placer County Groundwater Management Plan

The City adopted the Western Placer County Groundwater Management Plan (WPCGMP) in 2007. The Basin Management Objectives identified in the WPCGMP include:

- Management of the groundwater basin shall not have a significant adverse effect on groundwater quality
- Manage groundwater elevations to ensure an adequate groundwater supply for backup, emergency, and peak demands without adversely impacting adjacent areas
- Participate in state and federal land surface subsidence monitoring programs
- Protect against adverse impacts to surface water flows in creeks and rivers due to groundwater pumping
- Ensure groundwater recharge projects comply with state and federal regulations and protect beneficial uses of groundwater

City of Lincoln Department of Public Works Design Criteria and Procedures Manual

The Design Criteria and Procedures Manual establishes the City's standards for the preparation, submittal, and approval of development plans. The Manual includes specifications for proposed drainage systems and grading plans. Applicants are required to prepare an erosion and sedimentation control plan to be submitted concurrently with improvement and/or grading plans. The erosion and sedimentation control plan must include a revegetation plan, a runoff/drainage control plan, and the phasing of erosion control measures. The Manual provides standard conditions that should be included on the erosion and sedimentation control plan, including timing and methods for soil stabilization, natural drainage protection measures, and requirements for construction staging. As specified in the Manual, the proposed Specific Plan would establish the City's authority for enforcement of grading standards (City of Lincoln 2004).

West Placer County Storm Water Quality Design Manual

The City has coverage under the Phase II Small MS4 General Permit that was adopted by the State Water Resources Control Board (Order No. 2013-0001 DWQ, effective July 1, 2013). The Permit requires the City to have a stormwater program that controls the discharge of pollutants into the City's storm drainage system and our waterways. The City's Stormwater Program is multi-faceted and includes the following components:

- Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination

- Construction
- Pollution Prevention and Housekeeping
- Post Construction
- Program Effectiveness and Assessment

The *West Placer County Storm Water Quality Design Manual* is the region's guidance document for the development and implementation of LID design standards to reduce runoff, treat storm water, and provide baseline hydromodification management. The manual is a regulatory compliance tool that addresses the requirements of the Small MS4 Permit, and provides developers of regulated projects with a compliance map, template and guidance for the development of project specific storm water quality plans (SWQP). The proposed project is within the area governed by the Small MS4 Permit and thus is required by the City of Lincoln to develop and submit a project-specific SWQP.

City of Lincoln Solid Waste Reduction Program

The City of Lincoln Solid Waste Reduction Program (SRRE) was adopted by the City in 1992 to meet the requirements outlined in AB 939. The SRRE sets forth goals that direct the City toward the solid waste diversion requirement and reduce the City's solid waste impact.

4.17.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to utilities and service systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if the project would:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.
5. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

6. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
7. Comply with federal, state, and local statutes and regulations related to solid waste.

4.17.4 Impacts Analysis

4.17.4.1 Methods of Analysis

This section evaluates project impacts on existing public utilities, specifically capacity of water treatment and conveyance facilities, capacity of wastewater treatment facilities and stormwater facilities, landfill capacity, and energy facilities that would accommodate an increase in demand associated with the project. The City's General Plan, the City of Lincoln 2015 UWMP, SUD-B NEQ Water Supply Assessment (included in Appendix I), SUD-B NEQ Master Drainage Study (Appendix F), SUD-B NEQ Sewer System Report (Appendix K), and SUD-B NEQ Potable Water Distribution Modeling Report (Appendix J) were used to evaluate the project's potential effects and increase in demand on existing public utilities in the project area.

The impact analysis considers the project's effect on the demand for water supply, wastewater infrastructure and treatment, solid waste disposal, and energy and compares this to the thresholds of significance listed above. The analysis considers whether existing utilities and service systems are adequate to serve the demand generated by the proposed project and whether the proposed project would necessitate modifications to existing facilities or construction of new facilities. Project demands for water, wastewater and solid waste are quantified below.

Water

The SUD-B Northeast Quadrant Specific Plan Potable Water Distribution Modeling Report (Water Distribution Report) was prepared on December 5, 2016 by Frayji Design Group. The purpose of the report was to evaluate the proposed treated water pipe distribution system designed to serve the Specific Plan Area or project site.

The SUD-B Northeast Quadrant SB 610 Draft Water Supply Assessment (WSA) was prepared for the City of Lincoln in January 2017 to estimate the project's water demand. The WSA includes water conservation state mandates and indoor infrastructure requirements in its consideration of projected water demands. The assessment includes different water use factors for residential and non-residential uses within the project site. Residential uses are divided into indoor and outdoor residential uses. Indoor water usage factors are derived from the meter study conducted for the City's 2015 UWMP and are based on the total number of dwelling units. Outdoor residential water use factors are based on the size of residential lots and square footage of landscaping. The outdoor demand factors were determined from the 2010 UWMP meter study

results and refined with data from the 2015 water meter study. Non-residential water demand factors were derived from the 2015 UWMP. Non-residential uses evaluated in the WSA include mixed commercial uses, parks, and “other miscellaneous uses”, which includes open spaces, right-of-ways, and water required for construction. Construction water includes water necessary to support dust suppression and other incidental water uses associated with site grading, infrastructure installation, and other construction activities (Tully & Young 2017).

In order to fully account for all water demands, non-revenue water demands were assessed as part of the WSA as well. Non-revenue water includes water that is not included at customer meters such as distribution system leaks, water demands from un-metered uses, and inaccuracies in meter readings (Tully & Young 2017).

The project’s water demand and water demand factors used to calculate total project water demands are displayed below in Table 4.17-10. The proposed project is estimated to have a water demand of about 316 acre-feet per year at completion. The impact analysis for available water supply is based on a comparison of these water demand numbers to the listed thresholds of significance.

Table 4.17-10
Proposed Project Water Demands

Proposed Use	Unit Count or Acreage		Demand Factor (af/du or af/ac)	Demand (af/yr)		
	Current	2040		Current	2040	
Residential						
Low Density Residential (LDR)	0	430	0.19 (indoor)	0	82	
			0.27 (outdoor)	0	116	
Commercial						
Mixed Commercial	0	70	0.99 (indoor)	0	69	
Miscellaneous						
Park (P)	0	4	3.55	0	14	
Right of Way Landscaping (ROW)	0	17	0.19	0	3	
Open Space (OS)	0	23	0.00	0	0	
Misc. Subtotal (outdoor)				0	17	
Other Miscellaneous Uses						
	Current	2020	2025	2030	2035	2040
Construction Water (CW)	0	2	2	0	0	0
Total					Current	2040
Indoor Total					0	151

Table 4.17-10
Proposed Project Water Demands

Proposed Use	Unit Count or Acreage		Demand Factor (af/du or af/ac)	Demand (af/yr)	
	Current	2040		Current	2040
Outdoor Total				0	134
Total				0	284
<i>Outdoor Non-revenue Water (11%)</i>				<i>0</i>	<i>15</i>
<i>Indoor Non-revenue Water (11%)</i>				<i>0</i>	<i>17</i>
Indoor Total				0	167
Outdoor Total				0	148
Total Proposed Project Water Demand				0	316

Source: Tully & Young 2017

Wastewater

The SUD-B Northeast Quadrant Specific Plan Sewer System Report (Sewer System Report) was prepared on December 5, 2016 by Frayji Design Group. The purpose of the report was to evaluate wastewater needs for the proposed project.

Table 4.17-11 displays the projected wastewater generation for the proposed project. The expected wastewater treatment demand for the project was determined based on water demand factors for the planned land uses and the City's wastewater flow generation rates included in the Sewer System Report. The impact analysis for available wastewater capacity is based on a comparison of these wastewater generation rates to the listed thresholds of significance. As shown in the table, the project would generate 0.561 mgd of wastewater (Frayji 2016b).

Table 4.17-11
Proposed Project Wastewater Generation

Proposed Development	Parcel Acres	Land Use		Demand Coefficient ²		Average Dry Weather Daily Flows (mgd) ¹
		Quantity	Units	Value	Units	
Low Density Residential (LDR)	84.8	430	Dwelling Units	250	gpd/du	0.108
Commercial total	69.7	-	-		gal/ac	0.453
Commercial north (MH#1)	11.7	-	-	8,600	gal/ac	0.103
Commercial mid (MH#3)	23.8	-	-	6,800	gal/ac	0.162
Commercial south (MH#4)	34.2	-	-	5,500	gal/ac	0.188
Miscellaneous ³	43.9	-	-	0	gal/ac	0
Totals	198.4	430				0.561

Source: Frayji Design Group 2016b

Notes:

¹ mgd = million gallons per day

² Demand Coefficients were derived from the City of Lincoln Design Standards and proposed Land Use densities in the SUD-B NEQ Draft Specific Plan

³ Includes Park, Open Space, Right of Way, Landscaping

Solid Waste

The impact analysis for solid waste was based on a comparison of projected solid waste demand to the listed thresholds of significance. Table 4.17-12 displays the projected solid waste demand for the proposed project's construction and operations. The solid waste generation rates used are based on rates listed in the 2008 General Plan Draft EIR and the US EPA's 2003 report *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*.

The solid waste generation rates for project operation used are:

- Residential = 7.23 lbs/day/dwelling unit (City of Lincoln 2008b)
- Commercial = 1 lb/100 sf/day (City of Lincoln 2008b)

Projected solid waste generation rates shown in Table 4.17-12 are based on the 430 residential units and 3,036,132 square feet of commercial uses expected for the proposed project. The total projected amount of waste to be generated by the project during operation is about 1.41 tons/day of residential solid waste and about 13.77 tons of commercial solid waste per day. This totals about 15.18 tons per day of solid waste resulting from project operations.

Table 4.17-12
Proposed Project Solid Waste Generation

Construction				
<i>Proposed Use</i>	<i>Size³</i>	<i>Demand Factor¹</i>	<i>Solid Waste Generation (lbs)</i>	<i>Solid Waste Generation (tons)</i>
Residential	3,693,888 sf	4.38 lbs/sf	16,179,229.44	7338.78
Commercial/Retail	3,036,132 sf	3.89 lbs/sf	11,810,553.48	5357.17
Total				12,695.95 tons
Operation				
<i>Proposed Use</i>	<i>Size³</i>	<i>Demand Factor²</i>	<i>Solid Waste Generation (lbs/day)</i>	<i>Solid Waste Generation (tons/day)</i>
Residential	430 units	7.23 lbs/day/dwelling unit	3,108.9 lbs/day	1.41017332 tons/day
Commercial/Retail ²	3,036,132 sf	1 lb/100 sf/day	30,361.32 lbs/day	13.7716631 tons/day
Total			33,470.22 lbs/day	15.18183642 tons/day

Sources:

- ¹ Construction solid waste generation rates: US EPA 2003
² Operation solid waste generation rates: City of Lincoln 2008c
³ Total square footage per Land Use category

4.17.4.2 Analysis

Impact 4.17-1: The proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

The City of Lincoln's WWTRF would provide wastewater treatment service to the project site. The City's WWTRF operates under a NPDES permit and is permitted to discharge up to 3.3 mgd of treated effluent (Frayji 2016b). The project's Sewer System Report determined that the proposed project would generate an average of 0.561 mgd of wastewater. As the WWTRF currently treats an average dry weather flow of 2.4 mgd, the additional 0.561 mgd combined with the current average flow of 2.4 mgd would not exceed the plant's permitted allowable average dry weather flow effluent limit of 3.3 mgd, as specified under its NPDES permit (Frayji 2016b). The Central Valley RWQCB specifies that water treatment facilities must follow conditions under their NPDES permit. Wastewater generated by the proposed project is not expected to be comprised of any new or substantially different chemical constituents than those that are typically present in these types of mixed use projects and are not expected to be of concern regarding permitted effluent limitations for chemical parameters. Therefore, this impact would be **less than significant**.

Impact 4.17-2: The proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The City's water and wastewater treatment facilities are expected to have the capacity to accommodate the demands of the project, per the discussion below.

Wastewater Treatment

The proposed project would increase the amount of wastewater requiring treatment at the WWTRF.

As shown in Table 4.17-11, the proposed project is expected to generate approximately 0.561 mgd of wastewater which would not cause the WWTRF to exceed its capacity, or exceed its permitted average dry weather flow effluent limit of 3.3 mgd under its NPDES permit (Frayji 2016b).

The project site wastewater collection system would be comprised of a series of 6-inch, 8-inch, and 10-inch existing and new sewer lines, with larger pipe sizing potentially required in commercial zones, in accordance with city standards. These sewer lines would connect to the City's existing network of about 220 miles of trunk lines, lift stations, and force mains that flow into the WWTRF. The City also has several wastewater pumping stations that feed into force main pipelines which carry wastewater into downstream gravity sewers. The Sewer System

Report states that the project area would be supported by the long-term planned system for the City of Lincoln while utilizing existing infrastructure until full buildout (Frayji 2016b).

The primary trunk sewer lines that would serve the project area are a 10-inch sewer line in Nicolaus Road and a 36-inch trunk sewer line south of Douglas Drive. The 10-inch sewer line feeds into the Nicolaus Road Lift Station, which is located 0.5 of a mile east of the Nelson Lane/Nicolaus Road intersection. This line attaches to a manhole upstream of the lift station and then feeds into an existing 18-inch sewer line that connects to the lift station. The lift station connects to a series of force mains, pump stations and gravity lines which flow into a 36-inch line south of Douglas Drive. This 36-inch line extends under Auburn Ravine and into the WWTRF (Frayji 2016b).

The Nicolaus Road lift station currently supports a flow of 0.864 mgd on an average day and 2.12 mgd peak daily flow, and has a capacity to support 0.97 mgd on an average day and 2.57 mgd peak daily flow. This leaves an additional 0.103 mgd of unused capacity on an average day and 0.350 mgd of unused peak daily flow capacity. The proposed commercial site north of Markham Ravine can therefore be supported by this lift station.

The 36-inch sewer line currently supports a 1.3 mgd average daily flow and 7 mgd peak flow, and has a critical capacity of about 17 mgd. This is more than is necessary to support the flow of the entire project area south of Markham Ravine, which is estimated to contribute an average daily flow of 0.459 mgd and a peak flow of 1.102 mgd.

The Sewer System Report illustrates sewer system improvements that would be required serve the project site. The Sewer System Report divides the project site into Area 1, north of Markham Ravine and Areas 2 and 3, south of Markham Ravine. Area 1 would provide sewer service to the northwest corner of the project site and be supported by a new manhole while using the existing 10-inch sewer line in Nicolaus Road. Areas 2 and 3 would serve the remainder of the project site. Area 2 would flow into a new lift station to be constructed by the project in the southwest quadrant of the project site and then flows would be pumped into a new receiving manhole. Area 3 would flow into another manhole, and flows from both Area 2 and 3 would ultimately connect to the existing 36-inch trunk sewer line south of Douglas Drive (Frayji 2016b).

The 2050 General Plan anticipates construction of a new 54-inch sewer line in Nelson Lane that would feed into the WWTRF. The proposed sewer lift station on the project site could be connected to this sewer line in the future (Frayji 2016b). This proposed sewer line is not necessary to support the wastewater flows estimated for the project site, but can be used to carry these flows in the future.

Per the Sewer System Report, the project's wastewater demands at full build-out can be met and would not require the construction of new wastewater treatment facilities or expansion of existing facilities or conveyance infrastructure. Therefore, this impact is **less than significant**.

Water Treatment

The proposed project would increase demand for treated water. The project's demand for treated water would be supported by the City's existing water treatment and delivery infrastructure, as well as necessary improvements. As shown in Table 4.17-10, the proposed project is expected to generate an average water demand of approximately 316 acre-feet per year at build out or 282,998.71 gallons/day or about 0.3 mgd (Tully & Young 2017).

The PCWA would supply treated water to serve the project. Treated water would be provided by PCWA's Foothill WTP and Sunset WTP, which have a combined capacity of approximately 4.5 mgd (Tully & Young 2017).

The City's Reservoir 1, Refinery Point storage tank, would be the main source of water for the project area (Frayji 2016a). The project's water system includes a series of 6-inch to 12-inch water mains that would provide water service to residential and commercial uses. The water distribution system on the project site would be added in phases to accommodate water demand as the area builds out. The project site's water system would connect to existing waterlines in five locations. The eastern portion of the Specific Plan Area would be served by 12-inch waterlines that would connect to existing 12-inch waterlines in the residential neighborhood at First Street, Third Street, and Singer Place through three connections. The northern portion of the project site would be served by two connections that tie into an existing 12-inch waterline in Nicolaus Road, with one connection serving the planned commercial area in the northern area of the site. Just east of the connection point serving the commercial area, an existing 12-inch waterline connects to a 16-inch trunk line heading east in Nicolaus Road that would serve the project site. One more connection from the project site to the City's existing water system exists at the Nicolaus Road/Nelson Lane intersection with an 18-inch trunk line that extends south along Nelson Lane to the project site's southern boundary coterminous with the SR-65 Bypass boundary. The City's General Plan states that this trunk line would be extended 600 feet south of the southerly road from the Nicolaus Road Road/Nelson Lane intersection below the project site and convey reclaimed water to the project site in the future (Frayji 2016a). Construction of 6-inch, 8-inch, and 12-inch water mains would be necessary to support the project site's water system. Figure 4.17-1, along with the SUD-B NEQ Specific Plan document, displays the locations of water mains that would serve the project site.

As the water treatment plants have a total available capacity of approximately 4.5 mgd at present, and the proposed project would generate a water demand of about 0.3 mgd, the

treatment plants have adequate capacity to treat water to serve the project and would have an unused capacity of about 4.2 mgd after factoring in the project's water demand. This would not cause the need for expansion of existing water treatment facilities, as current facilities can adequately meet the project's demands. In addition, some of this water demand can be adequately met with recycled water supplies.

The proposed project would not require or result in the construction of new water treatment facilities or expansion of existing facilities; therefore, this impact would be **less than significant**.

Impact 4.17-3: The proposed project would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would not cause significant environmental effects.

The proposed project would result in an increase in stormwater runoff by converting predominantly agricultural land to residential, commercial, and other developed uses, thereby increasing impervious coverage on the project site. The Master Drainage Study prepared for the project evaluates the magnitude of runoff associated with the project after construction. The Master Drainage Study compares pre- and post-development peak flows and provides basin sizing criteria. Results from the study show that without the inclusion of water quality basins and other best management practices (BMPs), stormwater runoff would increase substantially compared to existing conditions. To provide the necessary retention and treatment, the project has been designed with a system of stormwater inlets, collector drains, trunk lines, seven water quality basins, and two vegetated swales to provide the necessary level of treatment for the project's stormwater outfalls. Section 4.9, Hydrology and Water Quality, Figure 4.9-3, shows the project's drainage management areas, water quality basins, and outfalls. The water quality basins have been located and sized to capture post-project stormwater flows, based on the standards contained in the Small MS4 Permit and the West Placer County Storm Water Quality Design Manual (Appendix 4.9-1). The required storage volume for these basins is 14.8 acre-feet, as shown in Table 4.17-13.

Table 4.17-13
Required Attenuation Creation Area (100-Year)

Location Name	Description	Pre-Project Net 100-year Storage (acre-feet)	Pre-Project Net 100-year Storage (acre-feet)	Required Storage (acre-feet)
<i>Auburn Ravine</i>				
DB1*	Detention Basin to the south of the Peery eastern residential property	5.6	5.6	0
<i>Markham Ravine</i>				
DB2	Detention Basin to the south of the Peery western residential property	0	3.6	3.6

Table 4.17-13
Required Attenuation Creation Area (100-Year)

Location Name	Description	Pre-Project Net 100-year Storage (acre-feet)	Pre-Project Net 100-year Storage (acre-feet)	Required Storage (acre-feet)
DB3	Detention Basin to the northwest of the Peery western residential property	0	0.6	0.6
DB4	Detention Basin to the northwest corner of the Peery commercial property	0	0.8	0.8
DB5	Detention Basin adjacent to Nelson Lane and the Peery commercial property	0	1.5	1.5
DB6	Detention Basin in the center of the northern portion of the Gill property	0	5.3	5.3
DB7	Detention Basin in the south of the Gill northern commercial property	0	3	3
Total On-site Storage Change				14.8

Source: Appendix 4.9-1

Note: See Figure 4.9-3 that shows the drainage basin locations.

The project site drains into the Markham Ravine and Auburn Ravine watersheds. In order to support development of the proposed project, existing and new underground pipes would carry runoff through water quality features and detention basins into Markham Ravine and Auburn Ravine (Frayji 2016c). The proposed project would maintain the general drainage pattern of the project site (i.e., there are no substantial changes between the pre- and post-project watershed area draining to each stream).

The project drainage system is designed to collect stormwater flows and use water quality features to treat stormwater prior to entering outfalls and existing drainage ways. Runoff from the project site would either flow off site or flow through one of nine locations that outfall into the Markham Ravine watershed or the one entry-way into the Auburn Ravine watershed. The northern portion of the project site that would flow directly into Markham Ravine would be supported by two proposed detention basins and two outfall pipes, including the only trunk drainage on the project site, which would allow flows into Markham Ravine and direct water away from existing residential areas west of the project site and include inverts and hydraulic grade lines for the post-project 10-year and 100-year event. The proposed project would not increase the existing floodplain, as the project would not increase existing peak flows and would not include development within Auburn Ravine's floodplain except for outfalls and water quality features (Frayji 2016c).

The project would construct a third outfall that would connect to an existing drainage ditch located north of SR-65, through which flows would continue for approximately one mile before entering Markham Ravine. The post-project outflows into the existing Caltrans drainage ditch

(adjacent to SR-65) would not increase relative to pre-project conditions and project flows would be treated before entering the ditch (Frayji 2016c). However, the proposed project does not specify which water quality treatment features would be used to treat stormwater in sufficient detail. Implementation of Mitigation Measure MM-HYD-1 (see Section 4.9, Hydrology and Water Quality) would ensure that parcel developers submit parcel-level Stormwater Quality Management Plans that identify water quality BMPs and low impact development (LID) designs that are specific to design-level grading and building plans, and customized for the proposed land use (e.g., commercial or residential).

In addition, to address particularly sensitive locations along Auburn and Markham Ravine, where standard water quality measures might not suffice, implementation of MM-BIO-12 (see Section 4.4, Biological Resources) includes additional measures to ensure work in proximity to the ravines do not adversely affect their riparian corridors. This includes seasonal work windows, avoidance measures, additional erosion controls, and post-construction stabilization measures.

Post-project flows into the four culverts in the third group of outfalls on Markham Ravine would maintain existing flows to existing drainage paths and would not exceed existing 10-year flows at each culvert (Frayji 2016c).

The existing subdivision to the east of the project site including First and Third Streets would not receive flows from the project site and does not currently accept flows from the project site. No flows from this subdivision would enter the project site. The neighboring property to the northeast, APN 021-262-006, would also not receive flows from the project site and would not contribute flows to the project site when the site develops (Frayji 2016c).

The City's Storm Drainage Design Standards and Post Construction Standards Plan (PCSP) were prepared by the City to comply with the NPDES General Permit No. CAS000004 for Storm Water discharges. The PCSP outlines LID and hydromodification steps that can be used to decrease runoff generated by the project and improve stormwater quality. These modifications include creation of bio swales, biofiltration units, and stormwater planters. The project includes stormwater retention and two vegetated swales as stormwater treatment measures. Furthermore, all storm drain pipes associated with the project would be designed to meet drainage standards outlined in Section 10 of the City's Design Criteria and Procedures Manual, which states that the size of storm drain pipes and basins must be adequate to avoid flooding of an streets, specifically (1) any vehicle lane within arterial roads, and (2) the center 12 feet of major collector streets in a 100-year storm.

The project's drainage system includes post-treatment diversion of flows into existing culvert crossings under Nelson Lane to ensure adequate flows are maintained to support flora and fauna within the riparian corridors of Auburn Ravine and Markham Ravine. Therefore, normal and

low-flows that currently support the riparian corridor would not be eliminated by the project's water quality basins.

The proposed project would not substantially alter the drainage pattern of the project site, and the proposed drainage system would not increase post-project flows into the Markham Ravine and Auburn Ravine watersheds. Detention basins would be designed to ensure adequate flows are provided to support existing riparian corridors and to maintain existing drainage patterns. The proposed project would not create storm water drainage facilities which would cause significant environmental effects, therefore, this impact would be **less than significant**.

Impact 4.17-4: The proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

The proposed project would increase demand for water. As shown in Table 4.17-10, the proposed project's water demand was estimated to be approximately 316 acre-feet per year at completion during normal water years. This water demand would be satisfied by a combination of surface water and groundwater provided by PCWA and NID. The total available treated water supply capacity that can be supplied by PCWA to the City under the current contract is about 20,724.2 acre-feet per year. Additionally, NID has the ability to supply the City with up to 12,000 acre-feet per year of treated water under the current contract. PCWA estimates that the existing water treatment plants have the treatment capacity for an additional 4.5 mgd of water (Tully & Young 2017).

Table 4.17-14 displays a comparison of projected water demands for the City of Lincoln, including the project site, and available water supplies. As shown in the table, projected surface water supplies and groundwater supplies are capable of serving the projected water demand through 2040 under all hydrologic conditions. The City would be served by treated surface water from PCWA and NID through 2040, as well as groundwater, non-potable water, and recycled water, as necessary. The addition of water to support the City's development into the future would be complemented with PCWA's and NID's planned infrastructure development to support increased demands. This increase in capacity would provide for surface water deliveries necessary for the full build-out of the proposed project.

Table 4.17-14
City of Lincoln Projected Water Demand

Category	Estimated Demand (af/year)					
	Current	2020	2025	2030	2035	2040
Current Customer Use	10,174	10,174	9,645	9,115	8,585	8,055
Projects Underway	0	56	250	326	334	481
Other Proposed Projects	0	2,061	3,548	5,795	8,108	10,465

Table 4.17-14
City of Lincoln Projected Water Demand

Category	Estimated Demand (af/year)					
	Current	2020	2025	2030	2035	2040
GPU Land Use Growth	0	0	0	0	0	1,224
Proposed Project	0	140	285	316	316	316
Total Water Demand	10,174	12,431	13,728	15,554	17,345	20,543

Source: Tully & Young 2017

Table 4.17-15
**Total Water Supply and Demand Comparisons During Normal,
 Single-Dry and Multiple-Dry Years**

Year	Projected Baseline Water Demand (AF)			Hydrologic Year Type	Water Supplies (Acre-Feet)					
	City of Lincoln	SUD-B NE Quad	Total		PCWA Supply	NID Supply	Groundwater Supply*	Recycled Water	Total Supply	Surplus
2020	12,291	140	12,431	Normal	13,239	12,000	2,854	3,300	31,393	18,962
				Single Dry	9,929	12,000	2,523		24,452	12,021
				Multiple Dry	12,577	12,000	2,788		27,365	14,934
2025	13,443	285	13,728	Normal	15,421	12,000	3,117	3,748	34,286	20,558
				Single Dry	11,566	12,000	2,731		30,045	16,317
				Multiple Dry	14,650	12,000	3,040		33,438	19,710
2030	15,237	316	15,553	Normal	18,335	12,000	3,472	4,381	38,188	22,635
				Single Dry	13,751	12,000	3,013		33,145	17,593
				Multiple Dry	17,418	12,000	3,380		37,179	21,627
2035	17,028	316	17,344	Normal	21,187	12,000	3,820	5,015	42,022	24,678
				Single Dry	15,890	12,000	3,290		36,195	18,851
				Multiple Dry	20,128	12,000	3,714		40,857	23,513
2040	20,226	316	20,542	Normal	25,533	12,000	4,360	6,063	47,956	27,414
				Single Dry	19,150	12,000	3,721		40,934	20,392
				Multiple Dry	24,256	12,000	4,232		46,551	26,010

Source: Tully & Young 2017

Groundwater would provide 10% of the project's annual water demands during normal years. The proposed project and planned growth would account for an increase in groundwater pumping by approximately 1,100 acre-feet by 2040. Within the City's service area, the project-related increase in groundwater use would be counter balanced or exceeded by concurrent reductions in agricultural groundwater use. Groundwater elevations for the past 25 years have not decreased considerably in western Placer County, and have actually risen in several locations. Groundwater pumping is not expected to change significantly from current use and the

Subbasin is anticipated to be able to continue to provide for supplemental and emergency groundwater demand for the City (Tully & Young 2017).

Furthermore, part of the project's water demands can be met with recycled water. Demand for recycled water for the proposed project is estimated to be about 17 acre-feet before including system losses (Tully & Young 2017). The City's General Plan Policy PFS-2.4 requires industrial, commercial, recreational users, and roadway landscaping to use reclaimed water when this is deemed feasible by the City. The SUD-B NEQ General Development Plan (GDP) specifies that in areas where irrigation is required, the irrigation system should be designed to maximize efficiency and limit or eliminate use of potable water. The GDP further notes that all components of the project's irrigation system will need to comply with City and State requirements for recycled water as the irrigation water source will ultimately be a municipal recycled water source (when available).

The proposed project has been prepared to be consistent with all applicable goals and policies in the General Plan. The project also complies with the City's policy requiring new development to use the best available technologies for water conservation. The Specific Plan observes this requirement by promoting sustainable building and design strategies to help conserve water, including water efficient irrigation systems, low flush toilets, low flow showerheads and other conservation measures. The Specific Plan also includes measures to reduce water use through low water use landscaping. As the proposed project would have sufficient water supplies to meet project water demands, a **less than significant impact** would occur.

Water Cumulative Impacts

As PCWA will be the main provider of surface water supply for the project area, this cumulative analysis considers total increases in demand for treated surface water supply within PCWA's service area. The General Plan is used as a basis for understanding cumulative water distribution system impacts.

The proposed project would contribute to cumulative increases in demand for treated water and water distribution needs. This demand for treated water will be provided by PCWA and NID, alongside groundwater and recycled water supplies. Projected water supplies to meet project water demands are shown in Table 4.17-15.

In order to adequately determine the ability for the City to supply water to serve the project, it is important to consider the City's projected water demand for existing, approved and future development. The City's existing and projected water demands are displayed in Table 4.17-14.

The City of Lincoln's 2015 UWMP states that approximately 37,000 acre-feet of water per year will be necessary for the City of Lincoln at full buildout of its General Plan (City of Lincoln 2016).

This demand is expected to be met primarily with PCWA water supplies. However, the SUD-B NEQ WSA estimates that the City will only need to receive 18,000 acre-feet of water per year from PCWA to meet demands. In addition to this, the City will receive about 12,000 acre-feet of treated water per year from NID. It is estimated that only 5,300 acre-feet of water will be necessary from NID supplies at maximum through 2040. The City estimates that it will only supply 10% of its water demands with groundwater resources during normal years, in compliance with its groundwater management goals (Tully & Young 2017).

Water Supply Sufficiency Analysis

The Sufficiency Analysis provided by the SUD-B NEQ WSA determined that there will be a sufficient supply of groundwater, PCWA and NID treated water, and total sufficiency of water supply on a cumulative basis. This analysis considered existing and planned future uses of the North American Subbasin by Western Placer County and Eastern Sutter County. Uses considered by these users include normal year usage, emergency usage, and long-term average use. Groundwater users in Western Placer County include the cities of Lincoln and Roseville, PCWA, and California American Water Company. However, the City of Roseville, California Water Service Company, and PCWA do not utilize groundwater supplies at present because PCWA already provides a large amount of water supplies to these customers. Due to this, the City of Lincoln also limits groundwater use to 10% of water demands. Furthermore, the Western Placer Groundwater Management Plan will help conserve groundwater levels into the future. Private agricultural users also account for less than 5% of total agricultural water supplies, and occasionally use groundwater. However, this use is minimal, as PCWA is able to provide for most of this agricultural water demand. As urbanization occurs, agricultural use of groundwater is likely to decrease over time. No major changes in groundwater pumping trends are predicted to occur during dry years in Western Placer County. Groundwater users that use the North American Subbasin in Eastern Sutter County include the Natomas Central Mutual Water Company (NCMWC) and the South Sutter Water District (SSWD). NCMWC possesses a Groundwater Management Plan that has kept groundwater levels relatively stable. Furthermore, NCMWC has rights and entitlements to over 120,000 acre-feet of surface water per year from the Sacramento River, and groundwater is only used by private users to supplement surface water supplies. SSWD water customers primarily use private wells for water supplies, and supplement this source with surface water resources. Both NCMWC and SSWD use rice as their primary crop, which has a high water demand. As urbanization occurs in the area or if there is a shift toward different crop types, groundwater usage will decrease in these areas (Tully & Young 2017).

The City of Lincoln is not likely to significantly increase its groundwater use in the future, as it possesses sufficient surface water supplies and has limited agricultural uses. In addition to this, with the implementation of the 2014 Sustainable Groundwater Management Act (SGMA), groundwater usage will be reduced. An analysis of future groundwater uses within the City's SOI was completed for the 2008 General Plan Update EIR. As groundwater is primarily used in

this region by agricultural users to supplement PCWA raw water supplies, this was used as a base assumption to estimate future groundwater demands. It was assumed that groundwater is used to meet 12% of the water demand for crops annually by these users under both existing and future conditions. The estimated existing and future crop use of water supplies were calculated using existing and projected acreages for different crop types, then applying water demand factors. The total existing water use for crops in the City's SOI was estimated to be 33,595 acre-feet/year and the total future water use was estimated to be 8,052 acre-feet/year at full buildout. After applying the 12% groundwater supply to these estimates, the existing use of groundwater within the City's SOI is 4,000 acre-feet/year and future use of groundwater within this area is about 1,000 acre-feet/year for agricultural uses. This would account for an approximately 3,000 acre-feet/year decrease in groundwater usage at full build-out of the General Plan. However, this does not include estimated groundwater usage for the new urban land uses that some agricultural lands will be converted into, which will account for approximately 10% of total water demand (Tully & Young 2017).

The estimated total groundwater use of the City at full build-out is about 1,600 acre-feet/year. This results in an a total decrease in groundwater usage of approximately 2,400 acre-feet/year, after accounting for the 3,000 acre-feet/year decrease in irrigated agricultural use of groundwater. As the groundwater elevations beneath the City and its SOI have remained relatively stable, and it is projected that groundwater usage will decrease by about 2,400 acre-feet/year in the future, it can be expected that groundwater levels will remain stable into the future after accounting for cumulative projected groundwater usage. Furthermore, increased groundwater management and monitoring by groundwater users of the North American Subbasin and increased urbanization would further ensure the stability of groundwater levels in this Subbasin (Tully & Young 2017).

PCWA and NID Normal, Single-Dry, and Multiple-Dry Year Sufficiency Analysis

The City of Lincoln 2015 UWMP and PCWA 2015 UWMP state that approximately 37,000 acre-feet of water per year will be available for the City of Lincoln at build-out. However, the City estimates that it will only need about 18,000 acre-feet of water per year at maximum at build-out. This water can be delivered by PCWA and meet demands through 2040. NID will also supply approximately 12,000 acre-feet of water per year, although only 5,300 acre-feet of water will be necessary from NID supplies at maximum through 2040 (Tully & Young 2017).

Table 4.17-15 shows a comparison between projected water demands for the project site and the City of Lincoln and projected water supplies for normal, single-dry and multiple-dry years from all water supply sources. Projected water demands and supplies are based on projected projects associated with the City's General Plan.

During single-dry and multiple-dry years, a reduced water supply may occur from PCWA and NID sources. Because of this, it is possible that PCWA supplies received by the City could be reduced during single-dry years, but no reduction would likely occur during multiple-dry years. NID water supplies may be reduced during dry years. However, as water supplies were not reduced in 2015, the driest year in California history, the City does not expect that NID water supplies will be reduced in single-dry or multiple-dry years. In order to supplement for lost water supplies during dry years, the City will use its groundwater resources, but will maintain a long-term annual average groundwater pumping rate of 10% (Tully & Young 2017).

In summary, the City's water supplies are expected to meet projected project demands during normal, single-dry, and multiple-dry years both for the project site and for future planned projects within the City's SOI through the year 2040, when full build-out of the General Plan is predicted. If water demand reduction is necessary, however, the City is capable of reducing its water demands by 25% (Tully & Young 2017).

Water Treatment and Distribution

As PCWA and NID expect to develop water delivery infrastructure alongside acquisition of water assets, the demand for treated water from new development of residential, commercial and industrial areas can be adequately met. If the planned PCWA infrastructure improvements included above in section 4.17.4.2 are finished, then water distribution issues will only include the completion of the Phase 3 pipeline, which will provide the City with an additional 5 mgd of water delivery capacity (Tully & Young 2017). This pipeline is currently scheduled for development. Delivery systems for this treated water demand will be supplied by PCWA and NID and funded by fees collected by the water agencies and the City's potable water connection fees.

The City's two water treatment plants owned by PCWA are expected to have enough capacity to meet the City's future treated water demand. As stated above, the water treatment facilities have about 4.5 mgd of unused capacity that the City possesses rights to. PCWA is also constructing a new water treatment facility and water transmission system. This new water treatment plant can be expanded to meet projected water needs (Tully & Young 2017).

Furthermore, NID and the City are planning to open a new water treatment plant that could serve the project site. The expected capacity of the facility is 17,500 acre-feet of water per year, or approximately 16 mgd (City of Lincoln 2016).

Metering stations and connections to the City's existing treated water supply system will need to be constructed to meet future water demands. These improvements will need to go through the project-level CEQA environmental review process and have the potential to cause the following impacts:

- Exposure of soils to erosion and loss of topsoil during construction;
- Surface water quality (cumulative impact);

- Construction-related air emissions;
- Construction and operations-related noise impacts;
- Visual and/or light and glare impacts;
- Loss of protected species and their habitats;
- Conversion of existing agricultural lands or resources;
- Fisheries (cumulative impact); and
- Exposure to pre-existing listed and unknown hazardous materials contamination.

Developer agreements and water agency fees would fund necessary water storage facilities and water transmission facilities as necessary. As these improvements are outlined in the 2050 General Plan and will be paid for through these agreements, it can be assumed that these improvements would occur according to General Plan build-out.

The City's existing supplies, consisting of PCWA and NID water deliveries, groundwater, and recycled water, are adequate to serve the project and the future projected water demands of the City. Therefore, the project impact to water supplies is **less than significant**.

Impact 4.17-5: The proposed project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

The proposed project would increase demand for wastewater treatment. As shown in Table 4.17-11, the proposed project would generate 0.561 mgd of wastewater requiring treatment at the WWTRF. The WWTRF has the capacity to treat dry weather flows of 4.2 mgd at a minimum, and is limited to treat 3.3 mgd of wastewater under its NPDES permit. The WWTRF currently treats an average daily dry weather flow of 2.4 mgd. Adequate capacity is available at the WWTRF to accommodate the project's increase in demand for wastewater treatment (Frayji 2016b).

Because adequate capacity is available at the WWTRF to serve the project, this is considered a **less than significant impact**.

Impact 4.17-6: The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

The proposed project would increase solid waste generation in the City of Lincoln during project construction and operation. Using the solid waste generation rates shown in Table 4.17-17, it is estimated that during project construction approximately 12,696 tons of solid waste would require disposal. As construction would be occurring over a 20 year buildout, the amount of construction-

related solid waste would be approximately 634.8 tons/year (1.74 tons/day) at maximum. The WRSL has a permitted capacity of 1,900 tons of solid waste per day (WPWMA 2015). As the landfill typically receives 638 tons per weekday on average, this allows for a remaining capacity of approximately 1,262 tons of solid waste per day. Therefore, the project's construction waste would contribute 0.14% of the landfill's permitted capacity. As this is a minimal contribution, the WRSL would have adequate landfill capacity for construction debris. In addition to construction waste, the project would generate about 15.18 tons per day of solid waste during operation, which leaves the WRSL capacity at approximately 1,246.82 tons per day.

Furthermore, all solid waste would be delivered first to the MRF for sorting to capture recyclable materials prior to disposal at the WRSL. The MRF has a permitted processing capacity of 2,200 tons per day of solid waste and has an existing use of 1,116 tons per weekday (WPWMA 2015).

The proposed project is expected to generate 15.18 tons per day of solid waste during operation. This is 0.7% of the total daily capacity of the MRF, and about 1.4% of the total unused capacity of the MRF, and therefore would not exceed the capacity of the MRF. Over 30% of the City's solid waste is diverted at the MRF through the City's comprehensive recycling program. Without this diversion, the project would contribute 0.8% of the WRSL's daily maximum permitted amount and about 1.2% of its remaining capacity per day during project operation. This would not cause the maximum permitted use capacity of the WRSL to be exceeded (WPWMA 2015). With the 30% diversion rate included, the project would divert approximately 4.55 tons per day of solid waste and therefore generate approximately 10.63 tons per day during operation. The City also includes green waste collection for residents and commercial entities that would divert organic waste during project operation. Construction waste would also be sorted and recyclable materials would be separated at the MRF. This would further reduce the contribution of construction waste to the WRSL. Therefore, the project's solid waste demands during construction and operation would not exceed the capacity of the WRSL and the impact is **less than significant**.

Table 4.17-17
Projected Solid Waste Generation for Proposed Project

Land Use	Number of Units/ Square Feet/Acres	Generation Rate	Solid Waste Generated (lbs/day)	Solid Waste Generated (tons/day)	Solid Waste Generated w/ Diversion
Residential	430 units	7.23 lbs/day/ dwelling unit	3,108.9 lbs/day	1.41017332	0.987 tons/day
Commercial	3,036,132 sf	1 lb/100 sf/day	30,361.32	13.7716631	9.640 tons/day
Total Amount per Day			33,470.22	15.18183642	10.626 tons/day
Total Amount per Year			12,216,630.3 lbs/year	5,541.3702933 tons/year	3,878.49 tons/year

Source: City of Lincoln 2008b

Impact 4.17-6: The proposed project will comply with federal, state, and local statutes and regulations related to solid waste.

The proposed project would be required to comply with federal, state, and local statutes and regulations related to solid waste during project construction and operation. Solid waste collection would be provided by the WPWMA and disposal would be provided at the WRS�. The WPWMA provides recycling and waste disposal services to Placer County and the cities of Roseville, Rocklin, and Lincoln. The City provides 90-gallon cans for solid waste collection at curbside which is then taken to the WRS� by the intersection of Athens Avenue and Fiddymment Road. The WPWMA also accepts household hazardous waste at its Permanent Household Hazardous Waste Collection Facility on Fiddymment Road, about 3.3 miles southwest of the project site (WPWMA 2015).

The WPWMA has prepared a Waste Acceptance Policy for its WRS� that was last revised in December 2003. The policy outlines requirements for disposal at the WRS� according to its Solid Waste Facility Permit. The WRS� is permitted as a Class II and Class III facility. The WRS� only accepts municipal solid waste and other special wastes that are not hazardous wastes or designated wastes. The policy describes special wastes that are acceptable to be disposed of in the WRS� according to its permit and applicable statutes and regulations (WPWMA 2003). These statutes and regulations include those discussed in Section 4.17.2, Relevant Plans, Policies, and Ordinances.

The proposed project is not expected to generate any waste that is different from those generated by typical residential, commercial, and park uses, the project is expected to comply with the WPWMA Waste Acceptance Policy and other applicable statutes and regulations governing solid waste disposal.

In addition to this, the proposed project would follow the City of Lincoln Solid Waste Reduction Program (SRRE) solid waste diversion requirement and the California Integrated Waste Management Act (AB 939) solid waste diversion requirements. Businesses, schools, government entities and multi-family housing of five or more units that generated four or more cubic yards of waste per week are required to comply with AB 341 requirements for recycling (City of Lincoln 2017a). Furthermore, AB 1826 Chesbro (Chapter 727, Statutes of 2014) requires businesses and multi-family housing of five or more units that generate 4 cubic yards or more of organic waste as of January 1, 2017 to recycle their organic waste. All businesses and multi-family housing of five or more units that generate 4 cubic yards or more of total solid waste would be required to follow this requirement from January 1, 2019 onward (City of Lincoln 2017b).

The proposed project is required to comply with these policies. Therefore, this impact is **less than significant**.

4.17.5 Mitigation Measures

No potentially significant impacts related to public utilities have been identified. Therefore, no mitigation measures are required.

4.17.6 Level of Significance After Mitigation

Project impacts are less than significant and do not require mitigation.

4.17.7 Cumulative Analysis

Impact 4.17-7: The proposed project would result in less-than-significant cumulative impacts to public utilities.

The effects of the proposed project, when considered with other projects in the region, would result in a cumulative impact to public utilities. Specifically, present and probable future projects in the vicinity of the proposed project are anticipated to increase demands on treated water supplies and infrastructure, wastewater treatment needs, and solid waste disposal, which could affect the capacity of existing facilities that serve the City and potentially necessitate improvements or expansion of these facilities which could result in environmental impacts. The cumulative impact analysis for water supply and infrastructure is described above in Section 4.17.4, along with the water supply impact analysis for the project, and is therefore not included below.

The WWTRF service area is considered the cumulative context for wastewater impacts. As the proposed project would drain into the Markham Ravine and Auburn Ravine watersheds, these watersheds comprise the cumulative context for stormwater impacts. Cumulative solid waste impacts are considered for solid waste services in the WRSL's service area, which includes unincorporated Placer County and the Cities of Lincoln, Rocklin, and Roseville.

Water Supply Cumulative Impacts

Impact 4.17-4 discusses proposed project cumulative impacts on water supply and finds that there is an adequate water supply when considering the proposed project and projected demand.

Water Treatment Cumulative Impacts

Impact 4.17-4 discusses proposed project cumulative impacts on water treatment. The City's two water treatment plants owned by PCWA are expected to have enough capacity to meet the City's future treated water demand. PCWA is also planning a new water treatment facility and water transmission system that would serve the City. Furthermore, NID's proposed water treatment plant would provide treated water directly to the City. In combination, existing and future water

treatment facilities would be sufficient to meet treated water demands on a cumulative basis. Therefore, a less than significant cumulative impact would occur.

Wastewater Cumulative Impacts

As the WWTRF will be the main wastewater treatment facility for the project area, this cumulative analysis will consider total increases in demand for wastewater treatment within the WWTRF's service area. The WWTRF's service area includes the City of Lincoln, City of Auburn, and parts of Placer County. The proposed project is expected to contribute to cumulative increases in wastewater generation. The City's 2050 General Plan describes the wastewater collection system that is planned to meet projected wastewater collection buildout demands.

Expansion of the current WWTRF may be necessary to accommodate future wastewater treatment demands. All future projects that would be served by the WWTRF would be expected to contribute development fees toward expansion of the WWTRF and other wastewater facilities. In the case that expansion occurs, potential environmental impacts may include ground disturbance impacts, noise impacts, water and air quality impacts and impacts to cultural and natural resources. Any impacts tied to the WWTRF's daily operation would not differ substantially from current operational conditions. The WWTRF will still be required to follow applicable state, federal, and local water quality regulations. This includes standards set forth by the RWQCB, which will ensure water quality impacts and impacts to aquatic resources remain minimal.

The proposed project would comply with project development outlined in the City's General Plan and General Plan EIR, and would contribute a minimal portion of the WWTRF's current wastewater treatment capacity. As discussed in Impact 4.17-1 and Impact 4.17-2, the proposed project would generate an average of 0.561 mgd of wastewater, which is not considered a substantial contribution to the WWTRF. As the proposed project would not contribute to an exceedance of wastewater treatment capacity in existing facilities that would necessitate the construction or expansion of existing facilities, a less than significant cumulative impact would occur.

Stormwater Cumulative Impacts

The proposed project would include the construction of seven water quality detention basins, two vegetated swales, and a system of stormwater inlets, collector drains, and trunk lines that would support stormwater runoff from the project site. Other projects within the vicinity of the project site that would also be located within the watersheds of Auburn Ravine and Markham Ravine include the Village 5 Specific Plan project and Independence at Lincoln project. These projects would be supported by infrastructure in their project areas that would carry stormwater flows within their project site and resulting from their project. As individual projects within the City would be responsible for contributing fees to fund City stormwater facility improvements and would consider capacity of City infrastructure to support stormwater flows from their project, it

is unlikely that this project would contribute to a cumulatively considerable impact on stormwater and drainage facilities within the City. Therefore, a less than significant cumulative impact would occur.

Solid Waste Cumulative Impacts

The proposed project would utilize the MRF and WRS� for solid waste sorting and disposal, and therefore contribute to cumulative increases in demand for services at these facilities. These facilities serve unincorporated Placer County, the City of Lincoln, City of Rocklin, and City of Roseville. Population within these areas is expected to grow within the next 30 years, accounting for an increase in residential, commercial, industrial, and construction waste to be sorted at the MRF and disposed of at the WRS�. The WRS�’s permit extends until 2042 and the WPMA’s 2007 capacity study shows that the WRS� has enough capacity to support anticipated development until 2042. As described in section 4.17.4.2, the proposed project would not generate considerable solid waste contributions to the WRS�. The proposed project would generate 15.18 tons/day, which is 1.2% of the WRS�’s remaining capacity per day. This would not result in a substantial reduction of the WRS�’s capacity or lifetime. The proposed project would contribute approximately 1.4% of the total unused capacity of the MRF. In combination with other anticipated projects served by the MRF and WRS�, these increases would be a very minimal input to the cumulative contribution to the solid waste facilities.

Furthermore, individual projects within the WPWMA’s service area would be required to pay fees to account for additional demands on WPWMA facilities due to the project. As revenue would be generated to finance necessary services and facilities in proportion to project demand, the cumulative contribution of individual projects would be minimal. Because the contribution of solid waste to the WRS� and MRF resulting from the proposed project would not be cumulatively considerable, this is a less than significant cumulative impact.

Conclusion

Project impacts, when considered with past, present, and foreseeable future projects, would result in a cumulative impact to public utilities that is **less than significant**.

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CHAPTER 5 CEQA CONSIDERATIONS

5.1 INTRODUCTION

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. This chapter discusses the significant environmental effects that cannot be avoided if the proposed project is implemented, significant irreversible environmental changes that would result from implementation of the proposed project, growth-inducing impacts of the proposed project, a discussion of cumulative impacts, and (5) alternatives to the proposed project (evaluated in Chapter 6, Alternatives).

5.2 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed project, including significant and unavoidable impacts, are discussed in the technical sections contained in Chapter 4, Environmental Analysis, of this Draft EIR. Significant and unavoidable impacts are also listed below:

Impact 4.1-5 The project, in combination with other development, would cumulatively degrade the existing visual character or quality of the site and its surroundings.

Impact 4.2-1 The project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use

Impact 4.2-4 The project would have a cumulative effect on agriculture and forestry resources

Impact 4.3-1 The project would violate an air quality standard or contribute substantially to an existing or projected air quality violation

Impact 4.3-2 The project would result in a cumulatively considerable new increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold emissions which exceed quantitative thresholds for ozone precursors)

Impact 4.3-5 The project would have a cumulative effect on air quality resources

Impact 4.7-1 The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment

Impact 4.7-2 The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

Impact 4.7-3 The project would have a cumulative effect on greenhouse gas emissions.

Impact 4.15-7 The project would have a cumulative effect on traffic and/or circulation resources

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL IMPACTS

Section 15126.2 (c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental change that would be caused by the proposed project. Generally, a project would result in significant irreversible changes if:

- The primary and secondary impacts would generally commit future generations to similar uses (such as highway improvement that provides access to a previously inaccessible area);
- The project would involve a large commitment of nonrenewable resources (CEQA Guidelines Section 15126.2(c));
- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;
- The project would involve a large commitment of nonrenewable resources; or
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Implementation of the proposed project would result in the long-term commitment of resources of the project site to urban land use. The development of the proposed project would likely result in or contribute to the following irreversible environmental changes:

- Conversion of undeveloped land. Approximately 198 acres of undeveloped land would be converted to urban uses, thus precluding other alternate land uses in the future.
- Irreversible consumption of energy and natural resources associated with the future use of the site.

Development of the proposed project would result in the commitment of the project site to urban development, thereby precluding other uses for the lifespan of the project. Restoration of the site

to pre-developed conditions would not be feasible given the degree of disturbance, the urbanization of the area, and the level of capital investment.

Resources that would be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels. Wood products, asphalt, and concrete would be used in construction along with gas and diesel fuel. With respect to operational activities, compliance with all applicable state and local building codes, as well as mitigation measures, planning policies, and standard conservation features, would ensure that resources are conserved to the maximum extent possible. The project would incorporate a number of sustainable practices that reduce the consumption of energy. Nonetheless, construction activities related to the proposed project would result in irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels, natural gas, and gasoline and diesel for automobiles and construction equipment.

The CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by environmental accidents associated with the project. While the project would result in the use, transport, storage, and disposal of minor amounts of hazardous materials during project construction and operation, as described Section 4.8, Hazards and Hazardous Materials, all such activities would comply with applicable local, state and federal laws related to the use, storage and transport hazardous materials, which significantly reduces the likelihood and severity of accidents that could result in irreversible environmental damage. The project itself does not include any uniquely hazardous uses that would require any special handling or storage. Further, the project does not contain any industrial uses that would use or store acutely hazardous materials.

Implementation of the proposed project would result in the long-term commitment of resources to urban development. The most notable significant irreversible impacts include the use of non-renewable and/or slowly renewable natural and energy resources, such as lumber and other forest products and water resources during construction activities. Operations associated with future uses would also consume natural gas and electricity. These irreversible impacts, which are unavoidable consequences of urban growth, are described in detail in the appropriate sections of this Draft EIR (see Chapter 4).

5.4 GROWTH INDUCING IMPACTS

As required by Section 15126.2(d) of the CEQA Guidelines, an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, the stimulation of

economic activity within the region, or the establishment of policies or other precedents that directly or indirectly encourage additional growth. Under CEQA, this growth is not to be considered necessarily detrimental, beneficial, or of significant consequence. Induced growth would be considered a significant impact if it can be demonstrated that the potential growth, directly or indirectly, significantly affects the environment.

In general, a project could foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service, the provision of new access to an area, or a change in zoning or General Plan amendment approval), or economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion). These circumstances are further described below.

- **Elimination of Obstacles to Growth:** This refers to the extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity, or removes regulatory constraints that could result in growth unforeseen at the time of project approval.
- **Economic Effects:** This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the “multiplier effect.” A “multiplier” is an economic term used to describe interrelationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

Limitations on Analysis of Growth Inducement

Under the provisions of SB 375, an EIR prepared for a residential or mixed-use residential project that is consistent with the general land use designation, density, building intensity, and applicable policies specified for the project area a sustainable communities strategy (SCS) “is not required” to discuss growth inducing impacts, or any project specific or cumulative impacts from cars and light-duty truck trips on global warming, or on the regional transportation network (Pub. Res. Code, § 21159.28, subd. (a); Gov. Code, § 65080, subd. (b)(2)(I)).

The SPA is designated as a Developing Community in the 2016 MTP/SCS. This is consistent with the project, which would develop areas contiguous with the existing urban area at densities consistent with the General Plan. Therefore, Section 21159.28(a) would apply. Nevertheless, the following informational discussion is provided.

Elimination of Obstacles to Growth

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect, though not necessarily a significant one. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

Removal of Infrastructure Limitations or Provision of Capacity

The elimination of physical obstacles to growth is considered a growth-inducing effect, though not necessarily a significant one. For example, the expansion of infrastructure that would allow additional growth to occur.

The proposed project includes sizing of on-site infrastructure to serve development approved under the project. The project site is immediately adjacent to the SR 65 to the south, which would preclude development immediately south of the site; and Markham Rive and Lincoln Airport just to the north of the project site would preclude inducing growth to the north. Development of on-site infrastructure to accommodate the project would not be considered growth inducing because planned development essentially surrounds the site under the remainder of the SUD-B Northeast Quadrant Specific Plan and Village 5 Specific Plan area to the east. To the south east is a developed area currently served by the City of Lincoln (City), so the connection to existing City infrastructure to serve the project site would not induce growth in this area. The Project would potentially include construction of a signal at Nelson Road and Nelson Lane. However, this is a programmed improvement (in the City's capital improvement program) and is not currently constraining additional development. Due to the location of the project site, the proposed project would not eliminate any constraints that are currently obstacles to growth in this portion of the City that would hasten development of this area.

Economic Effects

The proposed project would affect the local economy by the construction of new residences that would encourage people to live in Lincoln and would help encourage people to stay in the City to take advantage of proximity to local shops, restaurants, and other amenities in nearby downtown.

Additional local employment can be generated through the multiplier effect, as discussed previously in this chapter. The multiplier effect tends to be greater in regions with larger, diverse economies due to a decrease in the requirement to import goods and services from outside the region. Project

construction would generate jobs over the life of the project, and would generate total labor income and tax revenues to the City and the region.

Two different types of additional employment are tracked through the multiplier effect. *Indirect* employment includes those additional jobs that are generated through the expenditure patterns of direct employment associated with the project. Indirect jobs tend to be in relatively close proximity to the places of employment and residence.

The multiplier effect also calculates *induced* employment. Induced employment follows the economic effect beyond the expenditures of the residents within the project area to include jobs created by the stream of goods and services necessary to support residences within the proposed project. When a manufacturer buys or sells products, the employment associated with those inputs or outputs are considered *induced* employment.

For example, when an employee of the project goes out to lunch, the person who serves the employee lunch holds a job that is *indirectly* related to the proposed project. When the server then goes out and spends money in the economy, the jobs generated by this third-tier effect are considered *induced* employment.

The multiplier effect also considers the secondary effect of employee expenditures. Thus, it includes the economic effect of the dollars spent by those employees and residents who support the employees of the project. The project includes nearly 900,000 square feet of commercial space that would generate future employees and tax revenues to the City and the region.

Increased future employment generated by employee spending ultimately results in physical development of space to accommodate those employees. It is the characteristics of this physical space and its specific location that will determine the type and magnitude of environmental impacts of this additional economic activity. Although the economic effect can be predicted, the actual environmental implications of this type of economic growth are too speculative to predict or evaluate, since they can be spread throughout the City, Placer County, and beyond.

Impacts of Induced Growth

The growth induced directly and indirectly by the proposed project could contribute to the environmental impacts, discussed in Chapter 4, in the City and the County, as well as the greater regional area. Any such environmental effects, however, are too diffuse and speculative to predict or describe with any particularity.

Indirect and induced population growth in the City would further contribute to the loss of open space and agricultural land because it would encourage the conversion of undeveloped land to urban uses for additional housing and infrastructure. However, it is assumed this new growth

would occur within areas of the City designated and zoned for development, per the City’s 2050 General Plan land use diagram. Again, however, the particular open space that might get converted cannot be predicted with any particularity.

In summary, although the proposed project can be said to induce growth, the consequences of such growth-inducement are too speculative to predict and thus cannot be said to contribute meaningfully to any significant environmental effect. Growth-inducing effects are **less than significant**.

5.5 ENERGY USAGE AND CONSERVATION

Appendix F of the California Environmental Quality Act (CEQA) Guidelines requires that EIRs discuss the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy, to ensure that energy implications are considered in project-related decision-making processes. As such, this section analyzes the energy impacts of the proposed project. This analysis considers the electricity, natural gas, and transportation fuel (petroleum) demand of the proposed project, as well as the potential service delivery effects of the projected energy demand.

Pacific Gas and Electric (PG&E) is the electric service provider in Placer County. The electric power supply grid within Placer County is part of a larger supply network operated and maintained by PG&E that encompasses the entire northern California region. However, PG&E produces some of its own power and purchases some of its electricity through the Independent System Operator, which in turn obtains electricity from a number of companies that operate power plants throughout the Western Grid. Natural gas service in the proposed project area is also provided by PG&E. PG&E provides underground electric and natural gas service within all new subdivisions in the City of Lincoln according to City requirements (although the construction or reconstruction of overhead distribution facilities is periodically required to supply the underground circuits within new developments).

Guidelines for the Determination of Significance

Appendix F does not prescribe a threshold for the determination of significance. Rather, Appendix F focuses on reducing and minimizing inefficient, wasteful, and unnecessary consumption of energy. Therefore, for the purpose of this EIR, a significant impact to energy would result if the proposed project would:

1. Result in the wasteful and inefficient use of nonrenewable resources during its construction.
2. Result in the wasteful and inefficient use of nonrenewable resources during long-term operation.
3. Be inconsistent with adopted plans and policies.

Impact Analysis

Energy Consumption

Electricity – Construction Use

Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers and heating, ventilation, and air conditioning) would be provided by PG&E. Electrically powered hand-tools would also be used during construction. The vast majority of the energy used during construction would be from petroleum (described below). The electricity used for construction activities would be temporary and negligible; therefore, impacts would be **less than significant**.

Electricity – Operational Use

For residential and nonresidential land uses, California Emissions Estimator Model (CalEEMod) version 2016.3.1 was used to estimate electricity consumption for the proposed project. The proposed project scenario includes revised energy and natural gas use factors per the 2016 Title 24 standards which require a reduction for new residential and nonresidential uses of 28% and 5% over the 2013 standards, respectively (CEC 2015). The operational electricity use for the proposed project is presented in Table 6.6-1.

Table 5-1
Estimated Electrical Demand – Operation

Land Use Type	Estimated Electrical Demand (kWh per year)
General Office Building	3,508,390
General Light Industry	852,000
Motel	1,317,250
Single Family Housing	3,705,170
Free-Standing Discount Superstore	2,149,200
Regional Shopping Center	4,090,640
Total	15,622,650

Notes: kWh = kilowatt-hour
See Appendix B for detailed results.

As shown above, the proposed project is estimated to have a total electrical demand of 15,622,650 kWh per year. Notably, compliance with California's 2016 Title 24 Energy Efficiency Standards would generally promote energy efficiency of structures during operation of the project. The proposed project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains voluntary energy measures that are applicable to proposed project under the California Green Building Standards Code. Since these standards are updated periodically with more stringent

conservation requirements, additional updates and associated building energy use reductions would occur over the span of Specific Plan buildout. As such, the annual electricity use estimates described above would be conservative. Prior to project approval, the City would ensure that the proposed project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Although electricity consumption would increase due to the implementation of the proposed project, minimum efficiency standards for household appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls and ceilings would ensure that the proposed project would not use energy in a wasteful manner. General Plan Policy OSC-3.14 would require the City to include energy planners and energy efficiency specialists in appropriate pre-application discussions with the applicant and developers to identify the potential for solar orientation and energy efficient systems, building practices and materials. For these reasons, the electricity consumption of the proposed project would not be considered inefficient or wasteful, and impacts would be **less than significant**.

Natural Gas – Construction Use

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under “Petroleum.” Any minor amounts of natural gas that may be consumed as a result of proposed project construction would be temporary and negligible and would not have an adverse effect; therefore, impacts would be **less than significant**.

Natural Gas – Operational Use

Natural gas would be directly consumed throughout operation of the proposed project, primarily through building heating. As described above and consistent with electricity use, the proposed project’s natural gas use from the residential and nonresidential land uses was estimated using CalEEMod. Table 6.6-2, Estimated Natural Gas Demand, shows the estimated natural gas use (in therms per year) for the proposed project during operation.

Table 5-2
Estimated Natural Gas Demand – Operation

Land Use Type	Estimated Natural Gas Demand (Therms per year)
General Office Building	54,838
General Light Industry	17,800
Motel	50,044
Single Family Housing	99,653
Free-Standing Discount Superstore	20,124
Regional Shopping Center	38,303
Total	280,762

Note: See Appendix B for detailed results.

As shown above, the proposed project is estimated to use 280,762 therms of natural gas per year. As with electricity demand, natural gas demand calculation for the proposed project assumes compliance with Title 24 standards for 2016. This estimate is conservative, since these standards are updated periodically with more stringent conservation requirements and additional updates and associated building energy use reductions would occur over the span of Specific Plan buildout. Notably, compliance with California's Title 24 Energy Efficiency Standards would generally promote energy efficiency of structures during operation of the project. The proposed project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains voluntary energy measures that are applicable to proposed project under the California Green Building Standards Code. Prior to project approval, the City would ensure that the proposed project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Although natural gas consumption would increase due to the implementation of the proposed project, minimum efficiency standards for household appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls and ceilings would ensure that the proposed project would not use energy in a wasteful manner. Therefore, natural gas consumption impacts would be **less than significant**.

Petroleum – Construction Use

Petroleum would be consumed throughout construction of the proposed project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and vehicle-miles travelled (VMT) associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities would rely on diesel fuel, as would vendor trucks involved in hauling building materials. Construction workers would travel to and from the project area throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the project area in gasoline-powered vehicles.

There are no unusual proposed project characteristics or construction processes that would require the use of equipment that would be more energy intensive than that used for comparable activities, or equipment that would not conform to current emissions standards (and related fuel efficiencies).

Heavy-duty construction equipment of various types would be used during each phase of construction. CalEEMod was used to estimate construction equipment usage, and results are included in Appendix B. Based on that analysis, over all phases of construction, diesel-fueled construction equipment would operate for an estimated 161,500 hours, as summarized in Table 6.6-3, Hours of Operation for Construction Equipment.

Table 5-3
Hours of Operation for Construction Equipment

Phase	Hours of Equipment Use
Phase 1C	34,290
Phase 1A and 1B	49,940
Phase 2B	34,290
Phase 2A	25,500
Phase 2C	17,480
Total	161,500

Source: Appendix B.

Fuel consumption from construction equipment was estimated by converting the total CO₂ emissions from each construction phase to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel. Construction is estimated to occur in the years 2018–2024 based on the construction phasing schedule. The conversion factor for gasoline is 9.13 kilograms per metric ton CO₂ per gallon (kg/MT CO₂/gallon) and the conversion factor for diesel is 10.35 kg/MT CO₂/gallon (The Climate Registry 2016). The estimated diesel fuel usage from construction equipment is shown in Table 6.6-4, Construction Equipment Diesel Demand.

Table 5-4
Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO ₂ (MT)	kg/CO ₂ /Gallon	Gallons
Phase 1C	33	697.10	10.35	67,353.11
Phase 1A and 1B	33	963.48	10.35	93,090.16
Phase 2B	33	680.24	10.35	65,724.03
Phase 2A	33	521.43	10.35	50,379.96
Phase 2C	33	358.87	10.35	34,673.68
Total				311,220.95

Sources: Appendix B (pieces of equipment and equipment CO₂); The Climate Registry 2016 (kg/CO₂/gallon).

Notes: CO₂ = carbon dioxide; MT = metric ton; kg = kilogram

Fuel consumption from worker and vendor trips are estimated by converting the total CO₂ emissions from each construction phase to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline fueled, and vendor vehicles are assumed to be diesel fueled. It was assumed that soils would be balanced on-site and that haul trucks would not be required during construction.

Calculations for total worker and vendor fuel consumption are provided in Table 6.6-5, Construction Worker Vehicle Gasoline Demand; and Table 6.6-6, Construction Vendor Truck Diesel Demand, respectively.

**Table 5-5
Construction Worker Vehicle Gasoline Demand**

Phase	Trips	Vehicle CO ₂ (MT)	kg/CO ₂ /Gallon	Gallons
Phase 1C	275,915	1,508.33	9.13	165,206.30
Phase 1A and 1B	297,385	1,573.85	9.13	172,382.75
Phase 2B	212,135	1,026.33	9.13	112,412.92
Phase 2A	40,540	186.64	9.13	20,442.51
Phase 2C	44,850	200.90	9.13	22,004.88
Total				492,449.36

Sources: Appendix B (construction worker CO₂); The Climate Registry 2016 (kg/CO₂/gallon).

Notes: CO₂ = carbon dioxide; MT = metric ton; kg = kilogram

**Table 5-6
Construction Vendor Truck Diesel Demand**

Phase	Trips	Vehicle CO ₂ (MT)	kg/CO ₂ /Gallon	Gallons
Phase 1C	110,700	1,435.84	10.35	138,728.35
Phase 1A and 1B	106,375	1,428.64	10.35	138,033.02
Phase 2B	86,100	1,083.51	10.35	104,687.43
Phase 2A	13,920	172.06	10.35	16,624.04
Phase 2C	16,800	206.69	10.35	19,970.03
Total				418,042.87

Sources: Appendix B (construction vendor CO₂); The Climate Registry 2016 (kg/CO₂/gallon).

Notes: CO₂ = carbon dioxide; MT = metric ton; kg = kilogram

As shown in Tables 6.6-4 through 6.6-6, the proposed project was estimated to consume approximately 1,221,713 gallons of petroleum during the construction phase. By comparison, California's consumption of petroleum is approximately 74.9 million gallons per day (EIA 2017a). Based on these assumptions, approximately 191 billion gallons of petroleum would be consumed in California over the course of the construction period. Construction of the proposed project would, therefore, equate to 0.0006% of the total amount of petroleum that would be used statewide during the course of the construction period. While construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. Further, the petroleum consumed related to project construction would be typical of construction projects of similar types and sizes and would not necessitate new petroleum resources beyond what are typically consumed in California. Therefore, because petroleum use during construction would be temporary and minimal and would not be wasteful or inefficient, impacts would be **less than significant**.

Petroleum – Operational Use

During operation, the majority of fuel consumption resulting from the proposed project would involve the use of resident, visitor, and employee motor vehicles traveling to and from the project area. Petroleum fuel consumption associated with motor vehicles traveling to and from the project area is a function of the VMT as a result of proposed project operation. As shown in Appendix B, the annual VMT attributable to the proposed project is expected to be 55,777,413 VMT per year. Similar to the construction worker and vendor trips, fuel consumption is estimated by converting the total CO₂ emissions from each land use type to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel. Based on the annual fleet mix provided in CalEEMod, 89.3% of the fleet range from light-duty to medium-duty vehicles and motorcycles are assumed to run on gasoline. The remaining 10.7% of vehicles represent medium-heavy duty to heavy-duty vehicles and buses/motor homes and are assumed to run on diesel.

Calculations for annual mobile source fuel consumption are provided in Table 6.6-7, Mobile Source Fuel Consumption – Operation. Mobile sources from the proposed project would result in approximately 2,285,594 gallons of gasoline per year and 233,835 gallons of diesel consumed per year beginning in 2025. By comparison, California as a whole consumes approximately 27.3 billion gallons of petroleum per year (EIA 2017a). Operation of the proposed project would equate to 0.009% of the total amount of annual petroleum that would be used statewide.

Table 5-7
Mobile Source Fuel Consumption – Operation

Fuel	Vehicle MT CO ₂	kg/CO ₂ /Gallon	Gallons
Gasoline	20,867.48	9.13	2,285,594.24
Diesel	2,420.20	10.35	233,835.39
Total			2,519,429.63

Sources: Appendix B (mobile source CO₂); The Climate Registry 2016 (kg/CO₂/gallon).

Notes: MT = metric ton; CO₂ = carbon dioxide; kg = kilogram.

It should be noted that over the lifetime of the proposed project, the fuel efficiency of the vehicles being used by the residents, visitors, and employees is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project area during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, the California Air Resources Board (CARB) has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and greenhouse gas (GHG) emissions into a single coordinated package of standards. The approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emissions vehicles in California (CARB 2013). Additionally, in response to Senate Bill 375, CARB has adopted the goal of reducing per-capita GHG emissions from 2005 levels by 7% by the year 2020

and 16% by the year 2035 for light-duty passenger vehicles in the Sacramento planning area. This reduction would occur by reducing VMT through the integration of land use planning and transportation (SACOG 2016). As discussed in detail in Section 4.7, Greenhouse Gas Emissions, the proposed project would not introduce substantial population and employment growth that is not accounted for under the City's General Plan or the *2016 Metropolitan Transportation Plan/Sustainable Communities Strategy* because in developing projections for the region, the Sacramento Area Council of Governments (SACOG) grouped SUD-B and plan area Village 5 growth projections together. Additionally, the proposed project would meet City of Lincoln policies including promoting alternative methods of transportation (i.e., use of bicycles, neighborhood electric vehicles [NEVs], and pedestrian walkways), which would also support the goals of SB 375 to reduce VMT.

In summary, although the proposed project would increase petroleum use during operation, the use is a small fraction of the statewide use and due to efficiency increases would diminish over time. Additionally, the inclusion of on-site walking/bicycling trails and other resident-serving amenities helps ensure that petroleum-based fuels are not inefficiently consumed. Given these considerations, the petroleum consumption associated with the proposed project would not be considered inefficient or wasteful and therefore would result in a **less than significant impact**.

Demand on Local and Regional Energy Supply

Electricity

As described previously, the proposed project would involve minimal use of electricity during construction. The proposed project was estimated to use 15,622,650 kWh per year of electricity during its operational phase. In 2015, PG&E supplied approximately 85,988.6 million kWh of electricity to customers (CEC 2016a). The project would implement design features, described previously under Energy Consumption: Electricity: Operational Use, to minimize its demand for electricity through the use of enhanced building energy efficiency standards. Implementation of the proposed project would not result in the inefficient or wasteful consumption of electricity and the resultant increase in energy demand would not exceed the available capacity of PG&E. Therefore, impacts would be **less than significant**.

Natural Gas

As described previously, the proposed project would use a negligible amount of natural gas during construction. The proposed project was estimated to use 280,762 therms of natural gas per year during its operational phase. In 2015, PG&E supplied 4,408.3 million therms of natural gas to customers (CEC 2016b). The proposed project would result in a minimal increase in natural gas consumption and would implement design features to minimize its demand for natural gas through the compliance with enhanced building energy efficiency

standards. In summary, the proposed project's demand would not have a significant impact on the local utility; therefore, it would result in a **less than significant impact**.

Petroleum

The proposed project would increase the use of petroleum relative to existing conditions at the project site. During the construction phase, it is anticipated that the proposed project would consume approximately 1,221,713 gallons of petroleum during the construction phase. This amount is approximately 0.0006% of the total amount of petroleum that would be used statewide during the course of the construction period. During operation, the increase in number of vehicles traveling to and from the project site would result in petroleum consumption of approximately 2,285,594 gallons of gasoline per year and 233,835 gallons of diesel consumed per year beginning. This equates to 0.009% of yearly gasoline use throughout the state. Notably, the United States produces approximately 622.7 million gallons of petroleum per day, amounting to 227.3 billion gallons per year (EIA 2017b). The increase in petroleum attributable to the proposed project would be negligible relative to petroleum production in the United States alone. Additionally, policies are in place at the state and federal level to increase fuel efficiency over time. Increasing efficiency of vehicles over the lifetime of the project is also anticipated to result in incremental reductions in the project's operational fuel use.

For the reasons described above, the proposed project's energy use falls well within local and regional energy supplies. Regarding petroleum, fuel economy and use of alternative modes of transportation are expected to increase over time, and even without such reductions in future petroleum use, the petroleum use associated with the proposed project would be negligible relative to current use and production. Therefore the proposed project would not create a significant demand on petroleum supplies or require substantial additional petroleum services capacity. Impacts would be **less than significant**.

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CHAPTER 6 ALTERNATIVES

6.1 INTRODUCTION

The purpose of the alternatives evaluation in an Environmental Impact Report (EIR), as stated in Section 15126.6(c) of the California Environmental Quality Act (CEQA) Guidelines, is to ensure that “[t]he range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects” identified under the proposed project. Pursuant to CEQA Guidelines, Section 15126.6, an analysis of alternatives to the project is presented in this Draft EIR to provide the public and decision makers with a range of possible alternatives to consider. The CEQA Guidelines state that an EIR shall describe a *reasonable* range of alternatives that would avoid or substantially lessen any significant effects of the project, but need not consider every conceivable alternative. The CEQA Guidelines further state that “the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly” (CEQA Guidelines, Section 15126.6(b)). Therefore, an EIR must describe a range of reasonable alternatives to the proposed project (or to its location) that could feasibly attain most of the basic objectives of the project. The feasibility of an alternative may be determined based on a variety of factors, including, but not limited to, site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and site accessibility and control (CEQA Guidelines, Section 15126.6(f)(1)).

Alternatives in an EIR must be potentially feasible (CEQA Guidelines, Section 15126.6(a)). Agency decision makers ultimately decide what is “actually feasible.” (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal. App. 4th 957, 981 (CNPS).) Under CEQA, “feasible” is defined as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (CEQA Guidelines, Section 15364). The concept of “feasibility” also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509; *CNPS, supra*, 177 Cal. App. 4th at p. 1001; *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166.) Moreover, “‘feasibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors.” (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417.)

An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project. The alternatives discussion is intended to focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives as listed in Chapter 3, Project Description, and in this chapter of this Draft EIR.

The lead agency's decision making body, in this case the Lincoln City Council, has the discretion to select a project alternative in lieu of the project. If this were to occur, the City Council would need to ensure that the level of detail included in the alternatives analysis is adequate and that there would not be any new or significant impacts as a result of selecting the alternative. The required Findings of Fact and Mitigation Monitoring and Reporting Plan (MMRP) would need to be prepared that identifies the alternative as the project selected for approval. It is anticipated that if one of the project alternatives is selected, the mitigation measures identified for the project would not change and would still be required and, depending on the alternative selected, may require additional mitigation measures where impacts are more severe than the project.

This chapter identifies the proposed project objectives, describes the project alternatives, and evaluates the comparative effects of the alternatives relative to the proposed project. As required under Section 15126.6(e) of the CEQA Guidelines, the environmentally superior alternative is identified and included at the end of this chapter.

6.1.1 Project Objectives

Pursuant to CEQA Guidelines, Section 15124(b), a clear statement of project objectives is required. The objectives and goals of the proposed project are as follows:

- Establish a Specific Plan for the roughly 186-acre area that provides a mix of commercial, residential and recreational land uses consistent with the City of Lincoln Goals and Policies in a way that enhances the local area.
- Implement the SUD-B Land Use Plan identified in the Lincoln 2030 General Plan.
- Maintain consistency with the Placer County Airport Land Use Compatibility Plan.
- Provide for excellent mobility, efficiency, and sustainability in an economically feasible and attractive smart-growth community.
- Provide infrastructure to support the proposed land use plan.
- Assure orderly growth in a logical manner with adequate public services.

6.1.2 Alternatives Considered but Dismissed from Further Consideration

As noted previously, the purpose of an alternatives analysis is to develop alternatives to the proposed project that substantially lessen at least one of the significant environmental effects identified as a result of the project, while still meeting most, if not all, of the basic project objectives.

6.1.2.1 Off-Site Alternative

An EIR should consider whether any of the significant effects of the project would be avoided or substantially reduced by putting the project in another location. In addition, the lead agency must determine the feasibility of an off-site alternative.

As discussed in *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 (*Goleta II*), where a project is consistent with an approved general plan, no off-site alternative need be analyzed in the EIR. The EIR “is not ordinarily an occasion for the reconsideration or overhaul of fundamental land-use policy.” (*Goleta II, supra*, 52 Cal.3d at p. 573.) In approving a general plan, the local agency has already identified and analyzed suitable alternative sites for particular types of development and has selected a feasible land use plan. “Informed and enlightened regional planning does not demand a project EIR dedicated to defining alternative sites without regard to feasibility. Such ad hoc reconsideration of basic planning policy is not only unnecessary, but would be in contravention of the legislative goal of long-term, comprehensive planning.” (*Goleta II, supra*, 52 Cal.3d at pp. 572-573.)

The City of Lincoln General Plan designates the two northerly project parcels as Special Use District B and the two southerly parcels are designated as Low Density Residential (see **Figure 4.10-1**). The General Plan considers development within the City’s sphere of influence, and has identified a series of Villages and Special Use Districts. General Plan buildout of these planning areas is analyzed in the General Plan EIR (SCH # 2005112003). The project site includes a portion of Special Use District B. The proposed project development, as discussed in Section 4.10, is consistent with the General Plan. In addition, the development of the remaining portion of Special Use District, outside of the project boundary, has been considered along with the buildout of Village 5 in the EIR for the Village 5 and Special Use District B Specific Plan (SCH # 2014052071).

Therefore, in consideration of the principles above, and the analysis contained in the City of Lincoln General Plan EIR and Village 5 Specific Plan EIR, an alternative location has not been considered further in this EIR.

6.1.2.2 Reduced Density Alternative

A reduction in the number of housing units would reduce (although perhaps not to a level that is less than significant), significant impacts related to transportation, air quality, and greenhouse gases. Under the provisions of SB 375, an EIR prepared for a residential or mixed-use residential project that is consistent with the general land use designation, density, building intensity, and applicable policies specified for the project area in the Sustainable Communities Strategy (SCS) prepared by the Sacramento Area Council of Governments (SACOG) is not required to reference, describe, or discuss a reduced residential density alternative to address the effects of car and light-duty truck trips generated by the project as part of its alternatives analysis (PRC Section 21159.28 (b)). As discussed in Section 4.10, the project is consistent with the SCS, and therefore a reduced density alternative is not considered further in this EIR.

6.1.2.3 Wetlands Avoidance Alternative

The project site contains approximately 14 acres of wetlands and waters of the U.S. (see Section 4.4). The majority of the wetlands, approximately 10 acres, which occur outside of the two ravines, would be removed by project activities. Loss of wetlands would require mitigation, in the form of off-site replacement per Mitigation Measure BIO-3. An alternative was considered that would preserve the wetlands on-site. However, a review of the wetland delineations prepared for the project site (included in Appendix C) show that the wetlands are distributed throughout the project site, making construction infeasible. Therefore this alternative is not considered further in this EIR.

6.1.2.4 Farmland Preservation Alternative

Conversion of Important Farmland is identified as a significant and unavoidable impact. Acquisition of Agricultural Easements, per mitigation measure AG-1, would reduce the impacts to farmland, but not to a less-than-significant level. Because this impact is primarily a result of the presence of Prime Farmland in the southernmost portion of the project site, an alternative was considered that would avoid this farmland. This alternative was rejected as infeasible for the following reasons:

1. Access to this site is on the west side, through the Peery property. Development of the remaining project would effectively cut off access to this site, limiting its use for agricultural production. Access on the eastern end would require construction of a bridge, or culvert and access road, over Auburn Ravine, and access through the adjoining private property. This would increase impacts to Auburn Ravine, even if access rights could be negotiated.
2. The resulting agricultural area would be a narrow triangular shaped field located between SR 65 and existing residences. As an isolated site, this configuration would be difficult for efficient

farming. Land use conflicts with existing residential development to the north, and future development to the west could have negative effects on farming operations.

3. The farmland area is currently within the City limits, identified by the General Plan for residential development, and zoned for residential development. Continued farming of this area would conflict with implementation of the General Plan.

This alternative is therefore not considered further in this EIR.

6.1.2.5 Northern Commercial Alternative

The northern half of the project site – the Gill property – is divided into commercial land uses on the western side (Nelson Lane) and residential uses on the east. The southern half (Peery property) is similarly divided between commercial uses on the western half, and residential on the east. There is a narrow open space buffer, but potential noise impacts may occur due to the proximity of these land uses, requiring mitigation. Concentrating all commercial uses on the northern half would reduce noise conflicts within the project, and could potentially make circulation and access easier (less mixing of residential and commercial traffic). However, this would require development of residential land uses within the C1 airport compatibility zone. Residential development in this area may exceed allowable noise exposure levels (55 dBA CNEL) and may exceed allowable residential densities. Therefore, this alternative was not considered further in this EIR.

6.2 ALTERNATIVES CONSIDERED IN THIS EIR

This section provides a description of the alternatives to the proposed project analyzed in this Draft EIR and evaluates how specific impacts differ in severity from those associated with the project. For purposes of this analysis, the potentially significant impacts identified under the alternatives analysis are assumed to be mitigated through compliance with mitigation measures identified in Sections 4.1 through 4.17 included in Chapter 4, which contains the environmental analysis of the proposed project.

The project alternatives identified herein address the significant impacts (before mitigation) identified for the project including traffic and air emissions associated with project construction. Thus, the alternatives developed for the project contemplate a less dense project with fewer units to address these impacts as well as a higher density alternative that can support a mixed use component. In many instances, the impacts are virtually identical to the proposed project and are described as such.

This Draft EIR has incorporated a reasonable range of project alternatives that, collectively, attain a majority of the project objectives in a reasonable manner while reducing the severity of the significant impacts (before mitigation) identified under the proposed project.

The alternatives to the proposed project analyzed in this Draft EIR are:

Alternative 1: No Project

Alternative 2: Expanded Park Alternative

6.2.1 Alternative 1: No Project Alternative

6.2.1.1 Basis for Consideration

An EIR alternatives analysis must include the “no project” alternative to allow decision makers to compare the impacts of approving the proposed project with the impacts of *not* approving the proposed project (CEQA Guidelines Section 15126.6(e)(1)). The no project discussion will follow one of two lines of analysis: (1) where the project includes a change to a land use plan or policy (including zoning), what kind of development would reasonably be expected to occur under exiting plans and considering available infrastructure and services; or (2) if no development would occur (the “no build” alternative), what would the effects be of the project site remaining in its existing state, compared to the circumstances if the proposed project were approved. As the proposed project is consistent with the planning designations for the project site, the first line of analysis (development consistent with existing plans) would not offer a meaningful comparison. Therefore, the “no project” alternative is considers the “no build” scenario.

The southernmost portion of the project site is currently within the City and zoned low density residential, and could theoretically be developed without annexation of the SUD-B site and approval of a specific plan. However, this portion of the project site cannot easily be developed without development of the adjacent SUD-B area, due to the need to extend roadway and make a second connection for emergency and evacuation access, and the need to create a looped potable water system. Therefore, development of this area is not considered in the “no project” alternative.

6.2.1.2 Description

Under the No Project Alternative, no development would occur on the project site. The site would remain in its current condition

6.2.1.3 Comparative Analysis of Environmental Effects

The No Project/No Development Alternative would produce no changes on the project site, because the site would remain in its current condition, effectively eliminating those project impacts described in Chapter 4 of the EIR (see Table 6-1). Regarding significant and unavoidable impacts, there would be no cumulative change in the visual setting, no conversion of farmland to urban uses, no air emissions or GHG emissions associated with project operation, and no cumulative increase in vehicle traffic.

6.2.1.4 Relationship to Proposed Project Objectives

The No Project Alternative would not achieve any of the project objectives.

6.2.2 Alternative 2: Expanded Park Alternative

6.2.2.1 Basis for Consideration

The proposed project does not include adequate park acreage to serve the future project residents on-site. As noted in Impact 4.14-1, the proposed project provides 4 acres of on-site active recreation, compared to 9 acres needed. The project applicant can pay fees to fund off-site recreation, as described in Mitigation Measure REC-1. This would reduce the impact to less than significant. As an alternative, the project could include additional active recreation facilities on-site.

6.2.2.2 Description

Under the Expanded Park Alternative, an additional 5-acre park would be constructed on-site. This would require either a reduction in commercial acreage, or increased residential densities in other portions of the project site to maintain the 430 residential units in the proposed project.

6.2.2.3 Comparative Analysis of Environmental Effects

The Alternative would avoid the potentially significant recreation impact by providing additional active recreation park land within the project site. No other impacts would be avoided or substantially reduced.

6.2.2.4 Relationship to Proposed Project Objectives

The No Project Alternative would not conflict with any of the project objectives.

6.3 COMPARISON OF ALTERNATIVES

Table 6-1 shows the potentially significant environmental effects of the proposed project, prior to implementation of mitigation measures, compared to the potential effects of the project alternatives. If a project alternative would have new or substantially greater impacts than the proposed project, this is also noted in the table.

Impact	Proposed Project	Alternative 1: No Project	Alternative 2: Expanded Parks
<i>Aesthetics</i>			
4.1-4. The project would potentially create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	S	LS	S

Impact	Proposed Project	Alternative 1: No Project	Alternative 2: Expanded Parks
4.1-5. The project, in combination with other development, would cumulatively degrade the existing visual character or quality of the site and its surroundings.	S	LS	S
<i>Agricultural Resources</i>			
4.2-1. The project would convert Prime Farmland and Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	S	LS	S
4.2-4. The project, in combination with other development, would cumulatively result in the conversion of Important Farmland to non-agricultural uses.	S	LS	S
<i>Air Quality</i>			
4.3-2. The project operational emissions would exceed air quality standards.	S	LS	S
4.3-5. The project would result in a cumulatively considerable new increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold emissions which exceed quantitative thresholds for ozone precursors).	S	LS	S
<i>Biological Resources</i>			
4.2-1. The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	S	LS	S
4.4-2. The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	S	LS	S
4.4-3. The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	S	LS	S
4.4-4. The project would interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	S	LS	S
4.4-5. The project would conflict with local policies or ordinances protecting biological resources, such as a tree preservation ordinance.	S	LS	S
4.4-7. The effects of the proposed project, when considered with other projects in the region, would result in a cumulative impact to grassland, oak woodland and riparian habitat.	S	LS	S
<i>Cultural Resources</i>			
4.5-2. The project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.	S	LS	S

Impact	Proposed Project	Alternative 1: No Project	Alternative 2: Expanded Parks
4.5-3. The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	S	LS	S
4.5-4. The project could disturb human remains, including those interred outside of formal cemeteries.	S	LS	S
4.5-5. The effects of the proposed project, when considered with other projects in the region, could result in a cumulative impact to cultural resources.	S	LS	S
<i>Geology and Soils</i>			
4.6-3. The project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	S	LS	S
4.6-4. The project would potentially be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	S	LS	S
<i>Greenhouse Gas Emissions</i>			
4.7-1. The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	S	LS	S
4.7-2. The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	S	LS	S
4.7-3. The effects of the proposed project, when considered with other projects in the region, would result in a cumulative impact related to greenhouse gas emissions.	S	LS	S
<i>Hazards and Hazardous Materials</i>			
4.8-5. The project could result in a safety hazard for people residing or working in the project area due to an airport land use plan.	S	LS	S
<i>Hydrology and Water Quality</i>			
4.9-1: The project would potentially violate water quality standards or waste discharge requirements.	S	LS	S
4.9-3: The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner which would result in substantial erosion or siltation on- or off-site.	S	LS	S
4.9-4: The project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.	S	LS	S
4.9-8: The project could place within a 100-year flood hazard area structures which would impede or redirect flood flows.	S	LS	S
4.9-9. The effects of the proposed project, when considered with other projects in the region, could result in a cumulative impact to hydrology and water quality.	S	LS	S

Impact	Proposed Project	Alternative 1: No Project	Alternative 2: Expanded Parks
<i>Land Use and Planning</i>			
4.10-2. The project could conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.	S	LS	S
<i>Noise</i>			
4.11-1. The project would result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	S	LS	S
4.11-3. The project would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	S	LS	S
4.11-4. The project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	S	LS	S
4.11-7. The project would have a cumulative effect on noise resources.	S	LS	S
<i>Recreation</i>			
4.14-2. The project would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	S	LS	LS
4.14-3. The effects of the proposed project, when considered with other projects in the region, would result in a cumulative impact to recreation.	S	LS	LS
<i>Traffic and Circulation</i>			
4.15-1: The project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	S	LS	S
4.15-7. The effects of the proposed project, when considered with other projects in the region, would result in a cumulative impact to traffic and circulation.	S	LS	S

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines require that an EIR identify the environmental superior alternative (Section 15126.6 (e)(2)). If the environmentally superior alternative is the “No Project” Alternative, the EIR must identify an environmentally superior alternative from among the other alternatives. As shown in Table 6-1, the No Project Alternative is the environmentally superior alternative. Therefore, the Expanded Park Alternative is considered the environmentally superior alternative.

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